

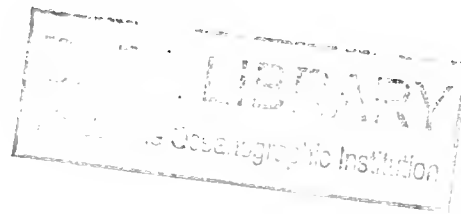
DEPARTMENT OF TRANSPORTATION



**COAST GUARD**

BULLETIN NO. 65

**Report of the International  
Ice Patrol Service  
in the  
North Atlantic Ocean**



SEASON OF 1979

**CG-188-34**

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DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

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Bulletin No. 65

REPORT OF THE INTERNATIONAL ICE PATROL SERVICES  
IN THE NORTH ATLANTIC OCEAN

Season of 1979

CG-188-34

FOREWORD

Forwarded herewith is Bulletin No. 65 of the International Ice Patrol describing the Patrol's services, and ice observations and conditions during the 1979 season.

D. F. HOLLINGSWORTH  
Acting Chief, Office of Operations

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## **PREFACE**

This is the 65th in a series of annual reports on the International Ice Patrol Service in the North Atlantic. It contains information on ice conditions and Ice Patrol operations for 1979.

The Marine Science Branch, Coast Guard Atlantic Area, prepares this report and acknowledges the assistance and information provided by the Canadian Department of the Environment, U.S. National Weather Service, U.S. Naval Weather Service, U.S. Coast Guard Oceanographic Unit and the U.S. Coast Guard Research and Development Center. We thank Lewis Research Center, National Aeronautical and Space Administration for their continuing effort to improve RADAR detection of icebergs.

We extend our sincere appreciation to the staff of Canadian Coast Guard Radio Station St. John's/VON for their excellent support during the 1979 Ice Patrol Season.

## INTERNATIONAL ICE PATROL, 1979

The U.S. Coast Guard conducted the 1979 International Ice Patrol Service in the North Atlantic Ocean under the provisions of Title 46, U.S. Code, Sections 738, 738a through 738d, and the International Convention for the Safety of Life at Sea (SOLAS), 1960, regulations 5-8. During the 1979 season, the International Ice Patrol disseminated information to the mariner on the ice conditions in the Grand Banks region of the Northwest Atlantic. To achieve this, the U.S. Coast Guard patrolled the southeastern, southern and southwestern limits of icebergs and maintained a plot on the extent of this dangerous region.

Commander, Coast Guard Atlantic Area is Commander, International Ice Patrol and directed the 1979 operations from the Ice Patrol Office located at Governors Island, NY. The office analyzed ice and environmental data and prepared the daily ice bulletins and facsimile chart. All Coast

Guard units deployed on Ice Patrol missions came under the operational control of Commander, International Ice Patrol. Vice Admiral Robert I. Price, U.S. Coast Guard, was Commander, International Ice Patrol. The Ice Patrol Officer was Commander Jerry C. Bacon, U.S. Coast Guard.

Preseason reconnaissance flights in January and February 1979 determined the early season iceberg distributions. Based on these flights the season commenced 6 March 1979. From that date until 21 July 1979, an Aerial Ice Reconnaissance Detachment operated from St. John's, Newfoundland averaging a patrol every other day over the Grand Banks. The season officially closed on 22 July 1979.

During the 1979 season, an estimated 152 icebergs drifted south of 48°N. Table 1 shows monthly estimates of bergs that crossed 48°N.

**Table 1—ESTIMATED NUMBER OF ICEBERGS SOUTH OF LATITUDE 48N, SEASON 1979**

|           | SEP | OCT | NOV | DEC | JAN | FEB | MAR  | APR  | MAY    | JUN  | JUL  | AUG | TOTAL  |
|-----------|-----|-----|-----|-----|-----|-----|------|------|--------|------|------|-----|--------|
| 1979      | 0   | 0   | 0   | 0   | 0   | 5   | 20   | 81   | 34     | 9    | 3    | 0   | 152    |
| TOTAL     |     |     |     |     |     |     |      |      |        |      |      |     |        |
| 1946-1979 | 10  | 2   | 4   | 11  | 64  | 269 | 1100 | 3060 | 2966   | 1767 | 486  | 100 | 9839   |
| AVERAGE   |     |     |     |     |     |     |      |      |        |      |      |     |        |
| 1946-1979 | 0   | 0   | 0   | 0   | 2   | 8   | 32   | 90   | 87     | 52   | 14   | 3   | 285    |
| TOTAL     |     |     |     |     |     |     |      |      |        |      |      |     |        |
| 1900-1979 | 256 | 109 | 110 | 91  | 184 | 721 | 3202 | 7905 | 10,049 | 5285 | 1682 | 489 | 30,083 |
| AVERAGE   |     |     |     |     |     |     |      |      |        |      |      |     |        |
| 1900-1979 | 3   | 1   | 1   | 1   | 2   | 9   | 40   | 99   | 126    | 66   | 21   | 6   | 377    |

## AERIAL ICE RECONNAISSANCE

During the 1979 Ice Patrol Season (considered from 1 September 1978 through 31 August 1979) there were 145 aircraft sorties flown in support of International Ice Patrol. These included preseason surveys, ice observation flights and logistic flights. Preseason flights determine iceberg concentrations north of 48°N which are necessary to estimate the time when icebergs will threaten the North Atlantic Shipping Lanes in the vicinity of the Grand Banks. During the active season, ice observation flights map the southwestern, southern and southeastern limits of icebergs. Logistics flights were necessary to rotate ice reconnaissance detachment personnel and for aircraft maintenance. Table 2 shows aircraft utilization during the 1979 season.

U.S. Coast Guard C-130 aircraft, deployed from either Coast Guard Air Station Elizabeth City, North Carolina or Clearwater, Florida, conducted the Aerial Ice Reconnaissance. These aircraft operated from St. John's, Newfoundland.

**Table 2—Aerial Ice Reconnaissance  
1 September 1978 to 31 August 1979**

| <i>Ice Recon Flights</i> | <i>Number of flights</i> | <i>Number of hours</i> |
|--------------------------|--------------------------|------------------------|
| Preseason/               |                          |                        |
| Postseason               | 16                       | 66.8                   |
| In Season                | 116                      | 472.2                  |
| Logistics                | 13                       | 39.9                   |
| Totals                   | 145                      | 578.9                  |

NOTE In season flights include transport of personnel to and from St. John's for normal crew rotation. There were 73 sorties dedicated to ice reconnaissance.

| <i>Ice Recon Flights</i> | <i>Month</i> | <i>Flights</i> |
|--------------------------|--------------|----------------|
|                          | FEB          | 2              |
|                          | MAR          | 16             |
|                          | APR          | 13             |
|                          | MAY          | 18             |
|                          | JUN          | 16             |
|                          | JUL          | 9              |
| Totals                   |              | 73             |



## COMMUNICATIONS

U.S. Coast Guard Communications Station NMF/NIK Boston, MA was the primary radio station used for the dissemination of the daily ice bulletin and facsimile chart. The Ice Patrol Office in New York prepared the bulletin and chart and sent it to numerous radio stations which broadcast the bulletin to mariners.

As in the past, the Ice Patrol Office requested all ships to report ice sightings, weather and sea surface temperatures to U.S. Coast Guard Communications Stations. Response to this request was good as shown in Table 3. The 10 most frequent contributors of this information were:

M/V BAKKAFOS/TFXO  
USCGC EVERGREEN/NRXD  
M/V KANSAS GETTY/DSOP

M/V GEM/5LSU  
M/V KARA/OIVD  
M/V SUSANNE/5DNU  
M/V ATLANTIC PREMIER/SFHN  
M/V STOVE TRADER/LDGS  
M/V VISEU/YODH  
M/V WEYROL/HPWO

Appendix A lists all contributors.

**Table 3**

|   |               |
|---|---------------|
| Number of ships furnishing SST reports    | 71            |
| Number of SST reports received            | 397           |
| Number of ships furnishing ice reports    | 76            |
| Number of aircraft furnishing ice reports | 3             |
| Number of ice reports received            | 183           |
| First Ice Bulletin                        | 060000Z MAR79 |
| Last Ice Bulletin                         | 220000Z JUL79 |

## ICE & ENVIRONMENTAL CONDITIONS

### September-December 1978

Figures 1 through 3 illustrate the growth of sea ice during this period. By December ice was as far south as the Strait of Belle Isle and extended 100 miles or more off the Labrador Coast. Iceberg sightings during this period were infrequent with Ice Central Ottawa reporting some icebergs in the waters off the Labrador Coast. Figures 20 through 23 depict surface pressure characteristics that contributed to ice formation and movement. During this period conditions were near normal, with predominately westerly winds and no unusual ice conditions noted.

### January-February 1979

Ice formation continued as shown in figures 4 and 5. By mid-February sea ice extended south as far as Cape Bonavista and out to 50 miles off the coast of Newfoundland. In early February the Ice Patrol conducted the first aerial reconnaissance of the 1979 season. Icebergs were sighted off the Coast of Labrador and by late February icebergs were probably crossing  $48^{\circ}\text{N}$  though there were no reconnaissance flights to verify this until early March. The average surface pressures shown in figures 24 and 25 indicate that a strong northerly flow existed in February creating the ideal conditions for moving ice and icebergs south towards the shipping lanes.

### March 1979

Limited reconnaissance during January and February led to the Ice Patrol conducting a comprehensive survey of the waters off Newfoundland during the first week of March. Icebergs were observed south of  $48^{\circ}\text{N}$  and as a result the Ice Patrol commenced broadcast of ice conditions on 6 March 1979. Figure 13 shows the estimated ice conditions at that time. Sea ice reached its southern limit during this month as seen from figure 6. However, the approaches to the Strait of Belle Isle and St. John's were covered by as much as seven oktas of sea ice. The ice conditions for 24 March are shown in figure 14. The average surface pressures for March (figure 26)

resulted in predominantly westerly air flow which kept the bergs offshore and ensured their clear passage southward. The estimated number of icebergs crossing  $48^{\circ}\text{N}$  for March was 20.

### April 1979

April marked the beginning of the sea ice retreat and was also the heaviest single month for icebergs crossing  $48^{\circ}\text{N}$ . An estimated 81 bergs drifted south during this month. Some typical ice conditions are shown in figures 7 and 15. It was during April that significant changes in weather patterns occurred that led to prevailing onshore breezes and the drift of icebergs out of the Labrador Current and towards the coast. This resulted in fewer bergs reaching the Grand Banks and a reduced hazard to shipping. Figure 27 shows the average surface pressures and the low pressure system east of Newfoundland that dominated the weather for April.

### May 1979

The unusual weather patterns of April continued to dominate through May. The weak low pressure system was moved east by a ridge of high pressure as seen in Figure 28. The result was a still persistent onshore breeze and a corresponding shoreward drift of ice and icebergs. Sea ice conditions are shown in figure 8; iceberg conditions for 1 May and 31 May are shown in figures 16 and 17. These figures show the trend towards shoreward drift and reduced numbers of icebergs that developed during this month. In May an estimated 34 bergs drifted south of  $48^{\circ}\text{N}$ . However, reconnaissance flights north along the coast of Labrador sighted hundreds of icebergs that would have drifted further south if they had not been blown out of the main stream of the Labrador Current.

### June 1979

By June it was apparent that the iceberg threat to shipping was greatly diminished and that few bergs would drift south towards the Grand Banks. Sea ice drifted no further south than the Labrador Coast and only an estimated nine bergs crossed

48°N. Ice conditions for 12 and 24 June are shown in figures 9 and 18. These show that most of the ice was well north of the major shipping lanes and with the increased water temperatures in that area few bergs were likely to survive the drift south and become a hazard.

The average surface pressure shown in figure 29 indicate a return to near normal conditions. The onshore breeze was no longer a predominant force but, as mentioned, the higher water temperatures took over where the breeze left off in preventing southward drift.

#### **July-August 1979**

July was the last month that Ice Patrol conducted reconnaissance operations; the last

flight was made on 19 July with no icebergs sighted in the vicinity of the Grand Banks. An estimated 3 icebergs drifted south of 48°N during July. Sea ice and iceberg conditions for late July are shown in figures 10 and 19. Sea surface pressures are shown in figures 30 and 31. Sea ice conditions for August are in figure 11; the retreat continued as seen in figure 12.

Iceberg reports continued to arrive through August but no bergs were noted south of the approaches to the Strait of Belle Isle. As is quite common, icebergs remained in that area and Ice Patrol forwarded all berg reports to Ice Central Ottawa which broadcast the information to North Atlantic mariners.

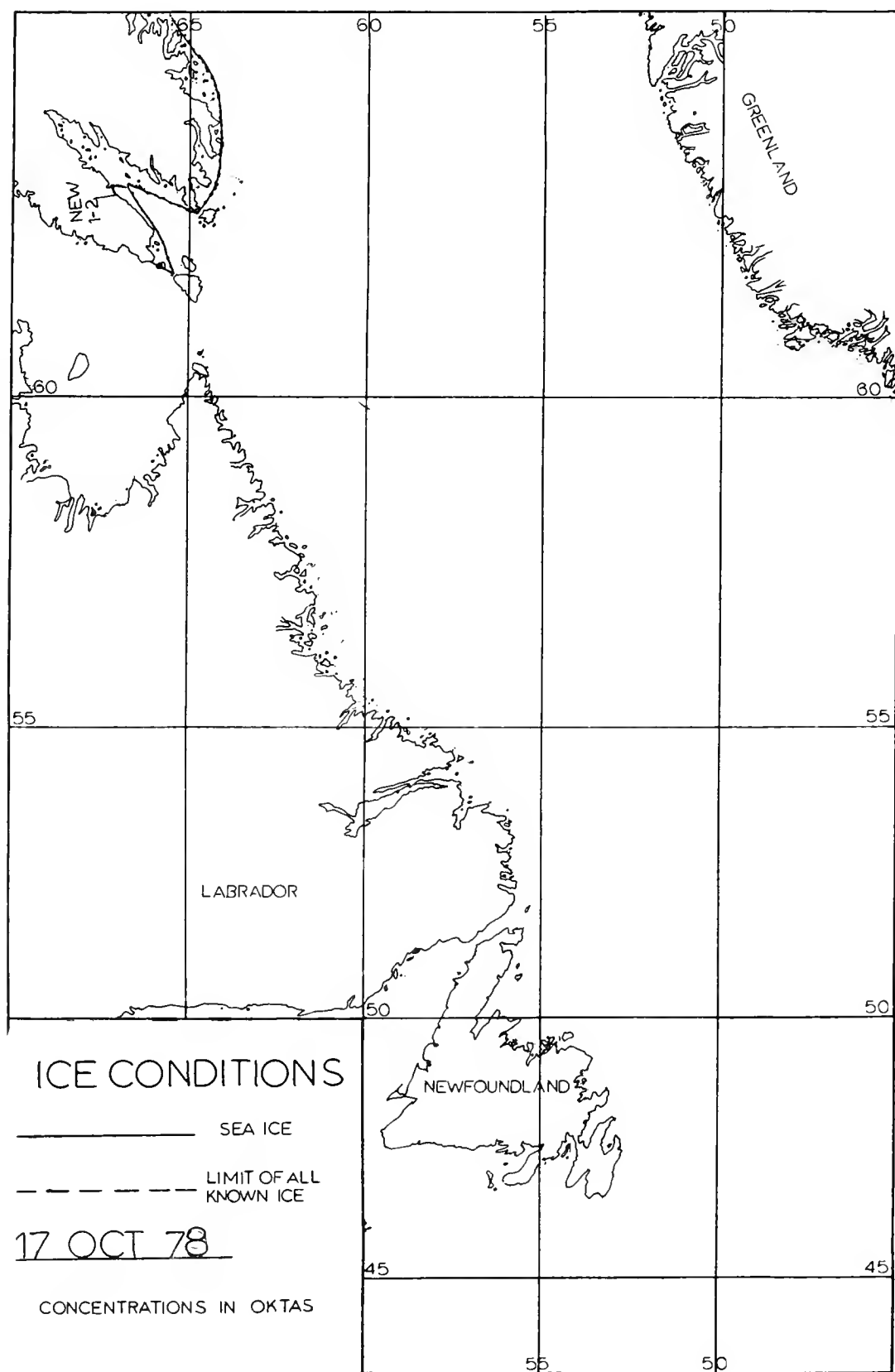


Figure 1

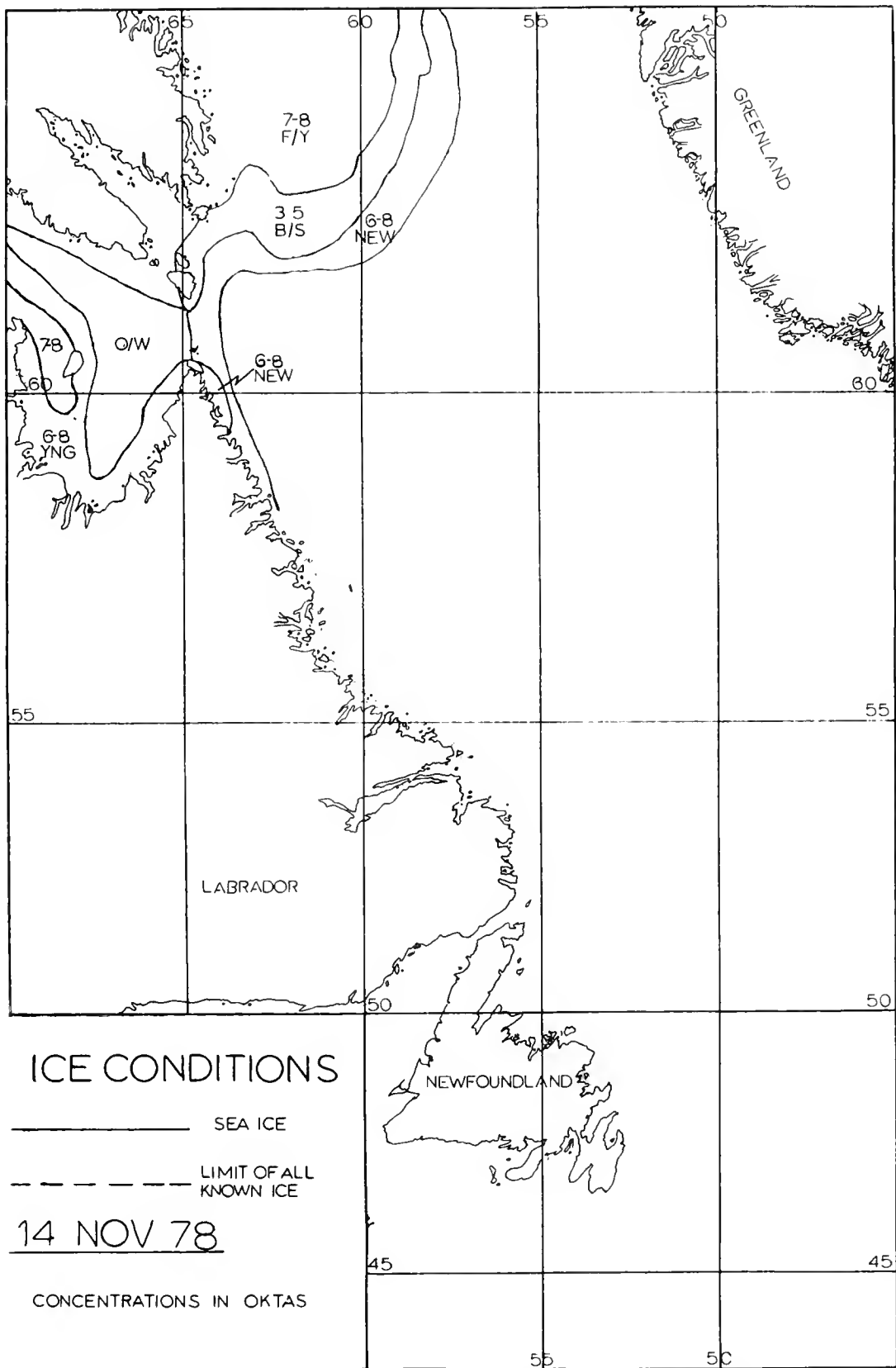


Figure 2

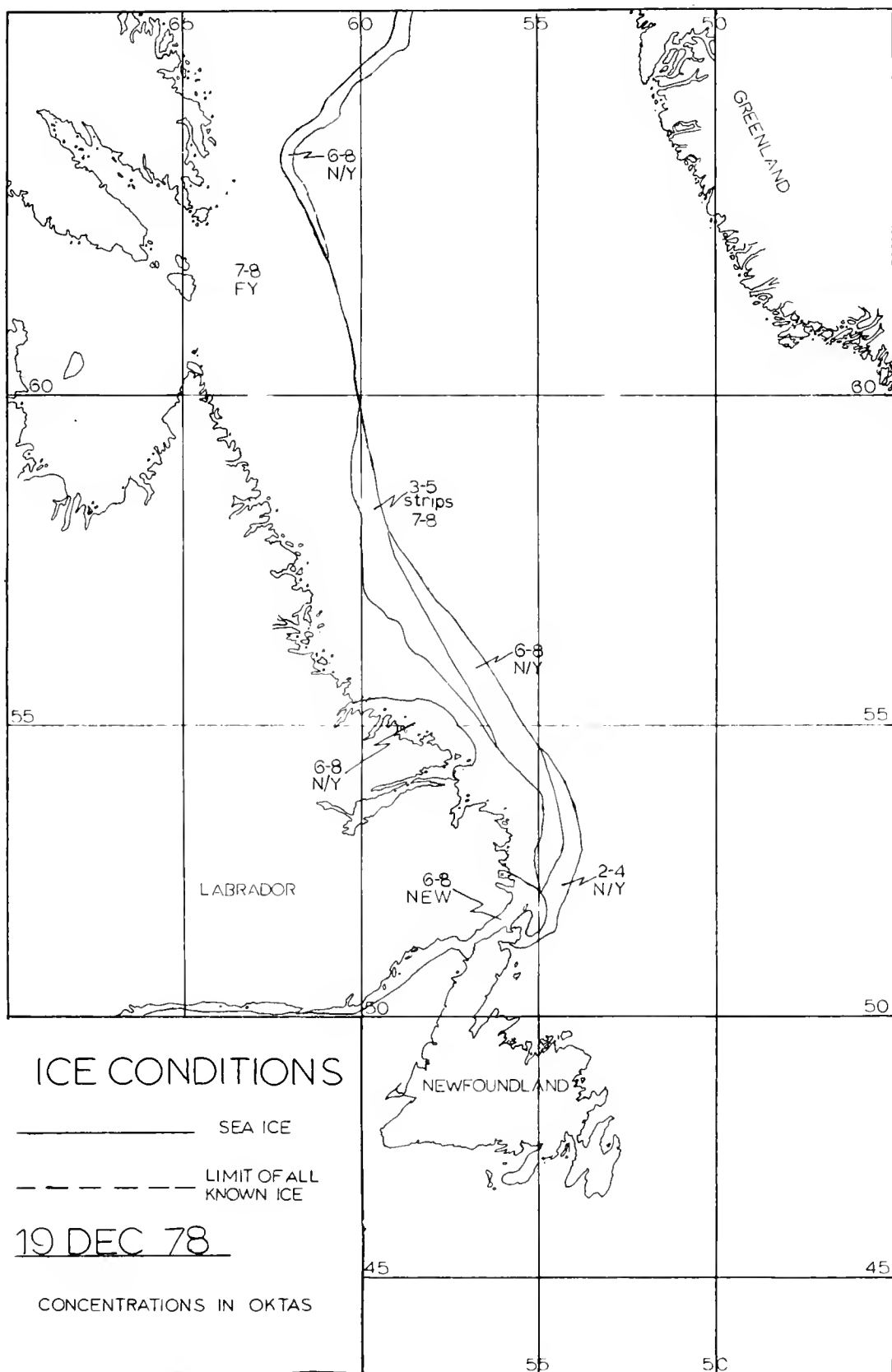


Figure 3

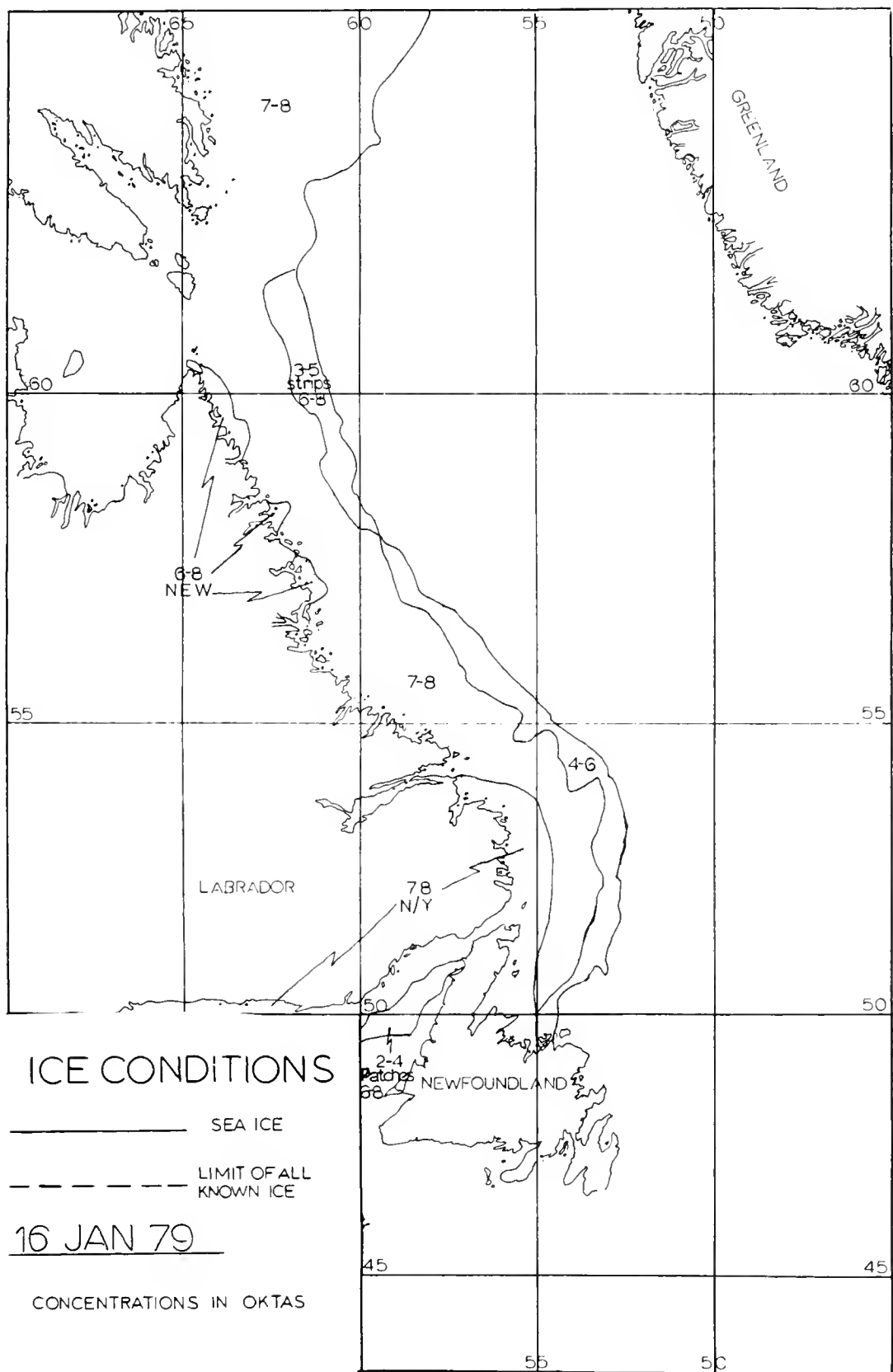


Figure 4

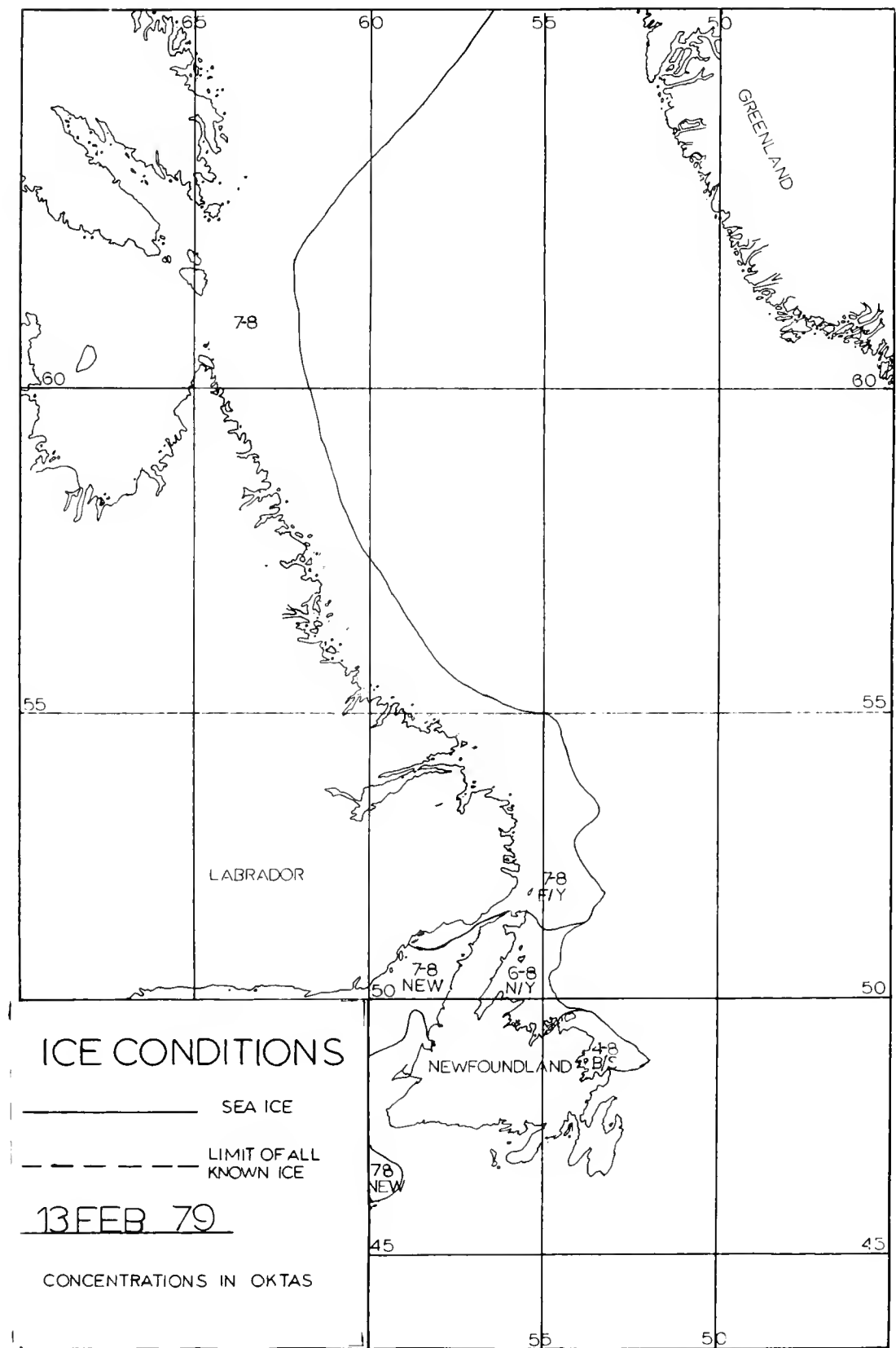


Figure 5



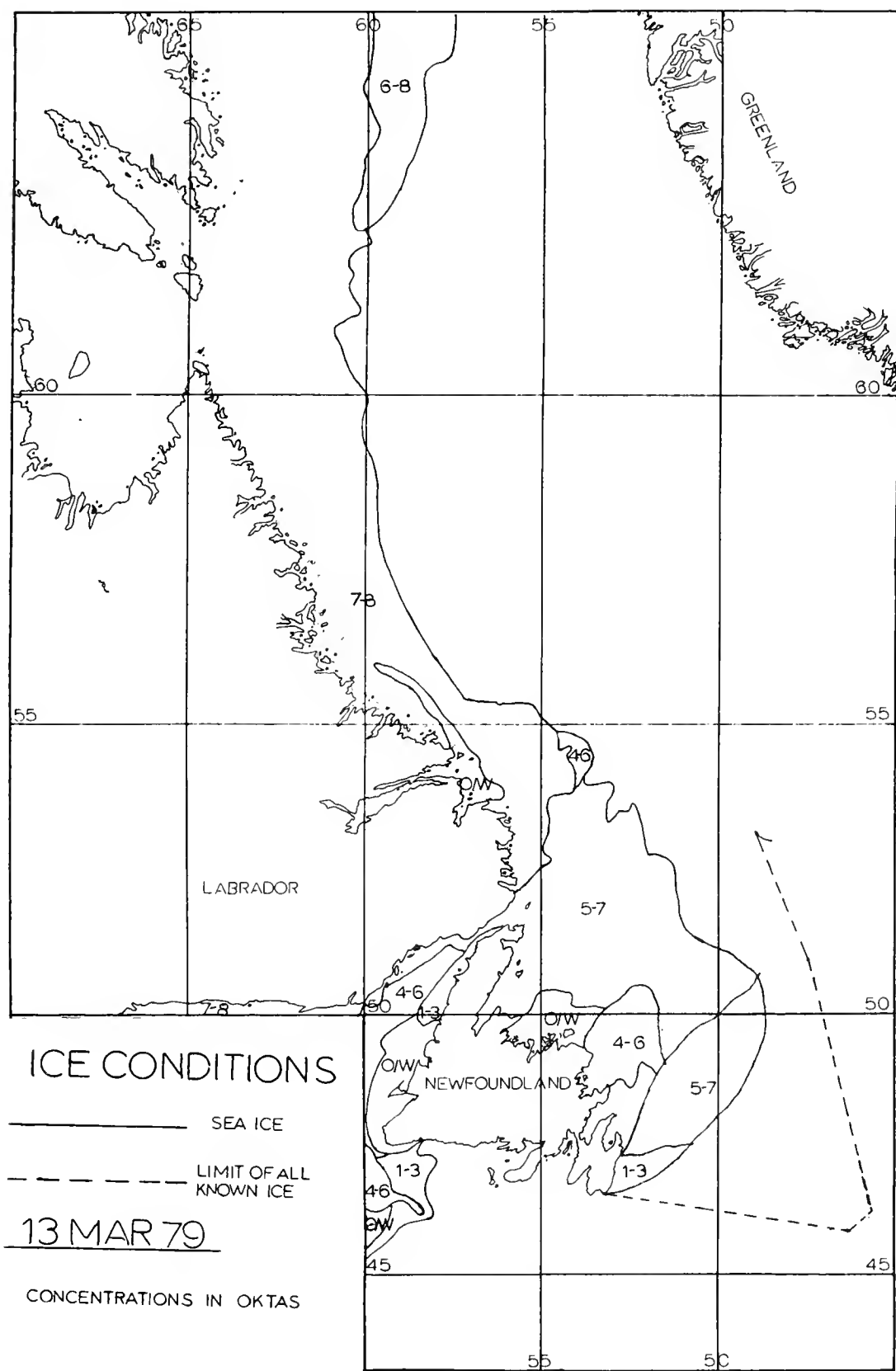


Figure 6

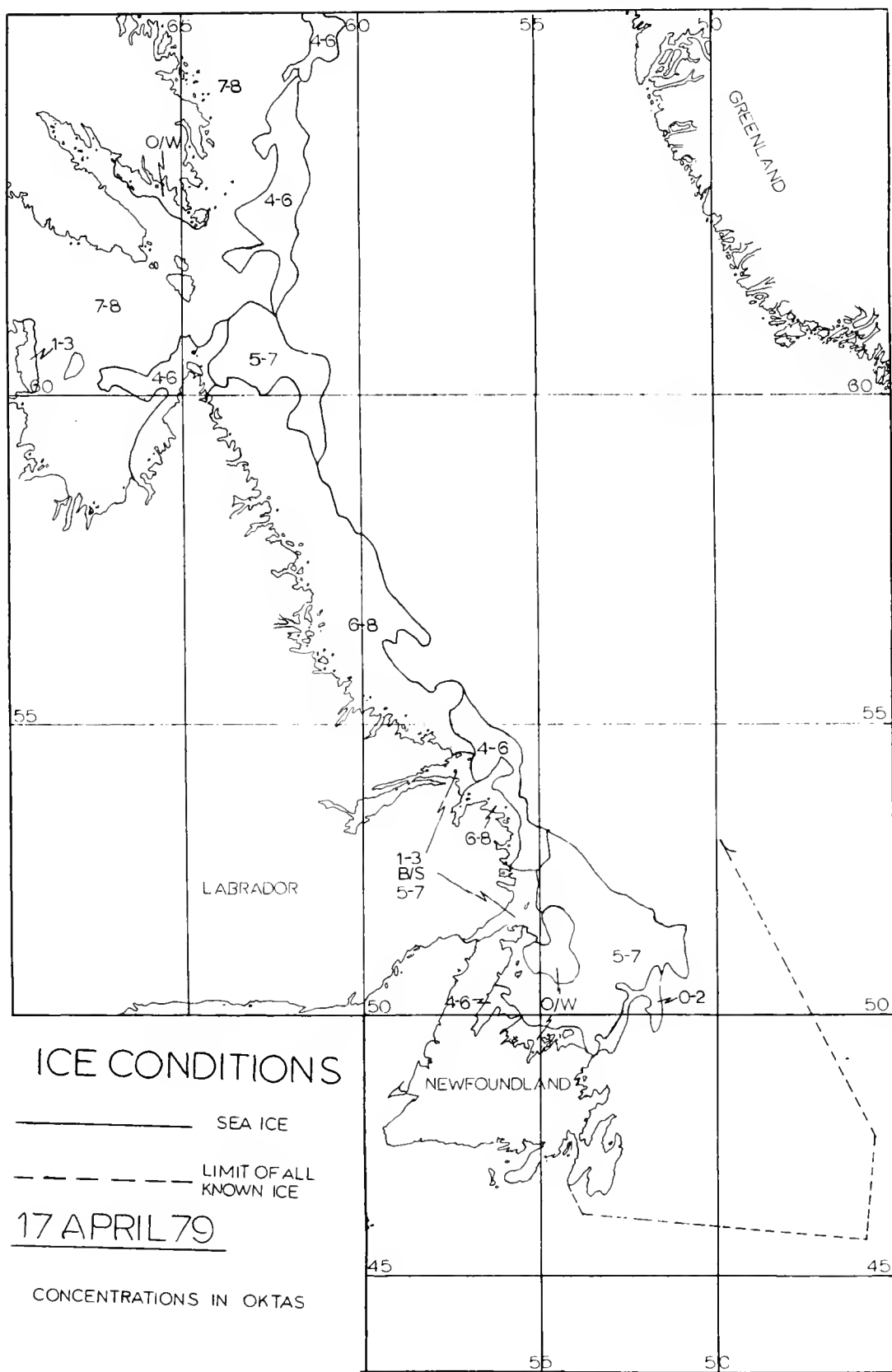


Figure 7

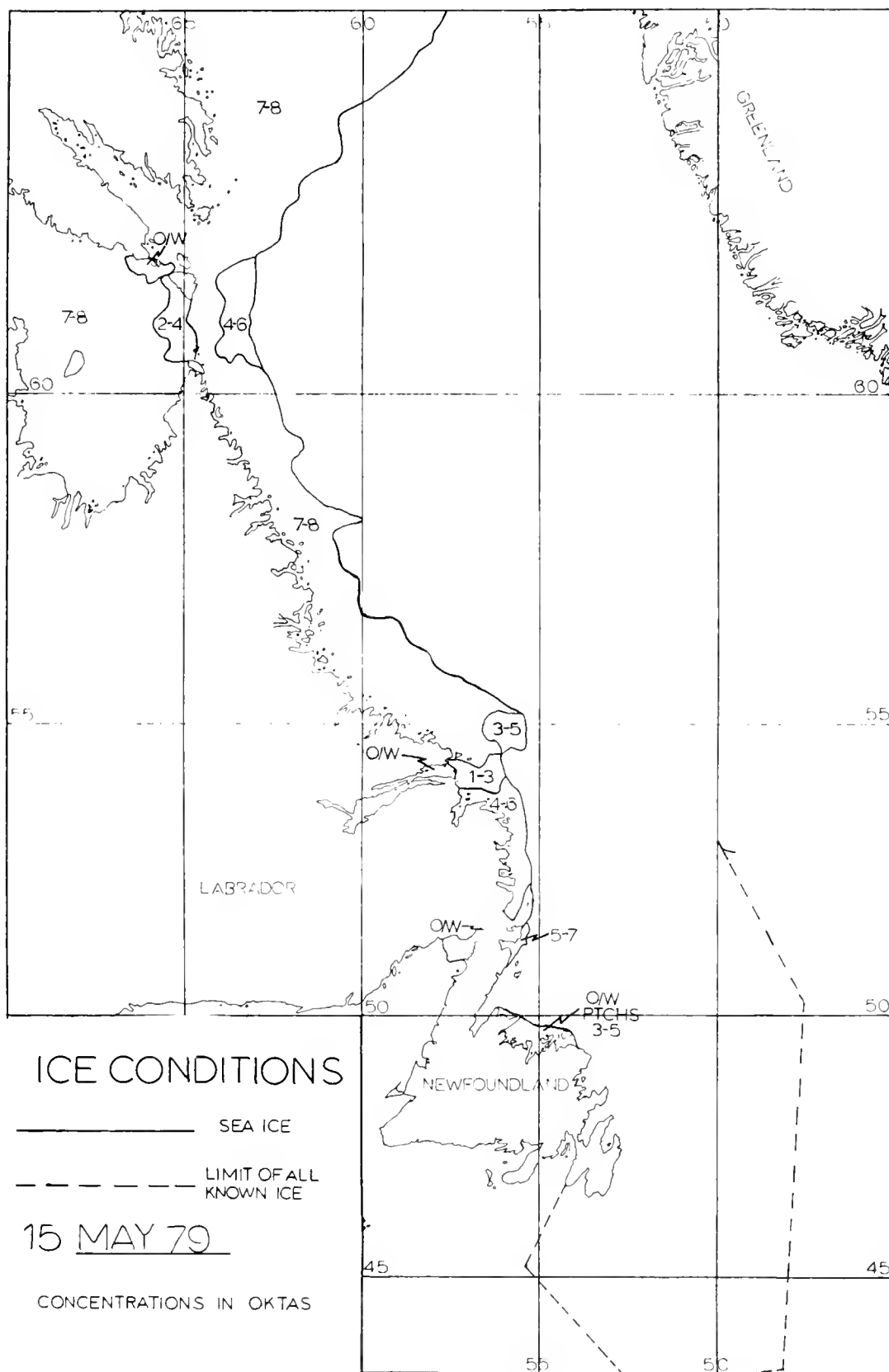


Figure 8

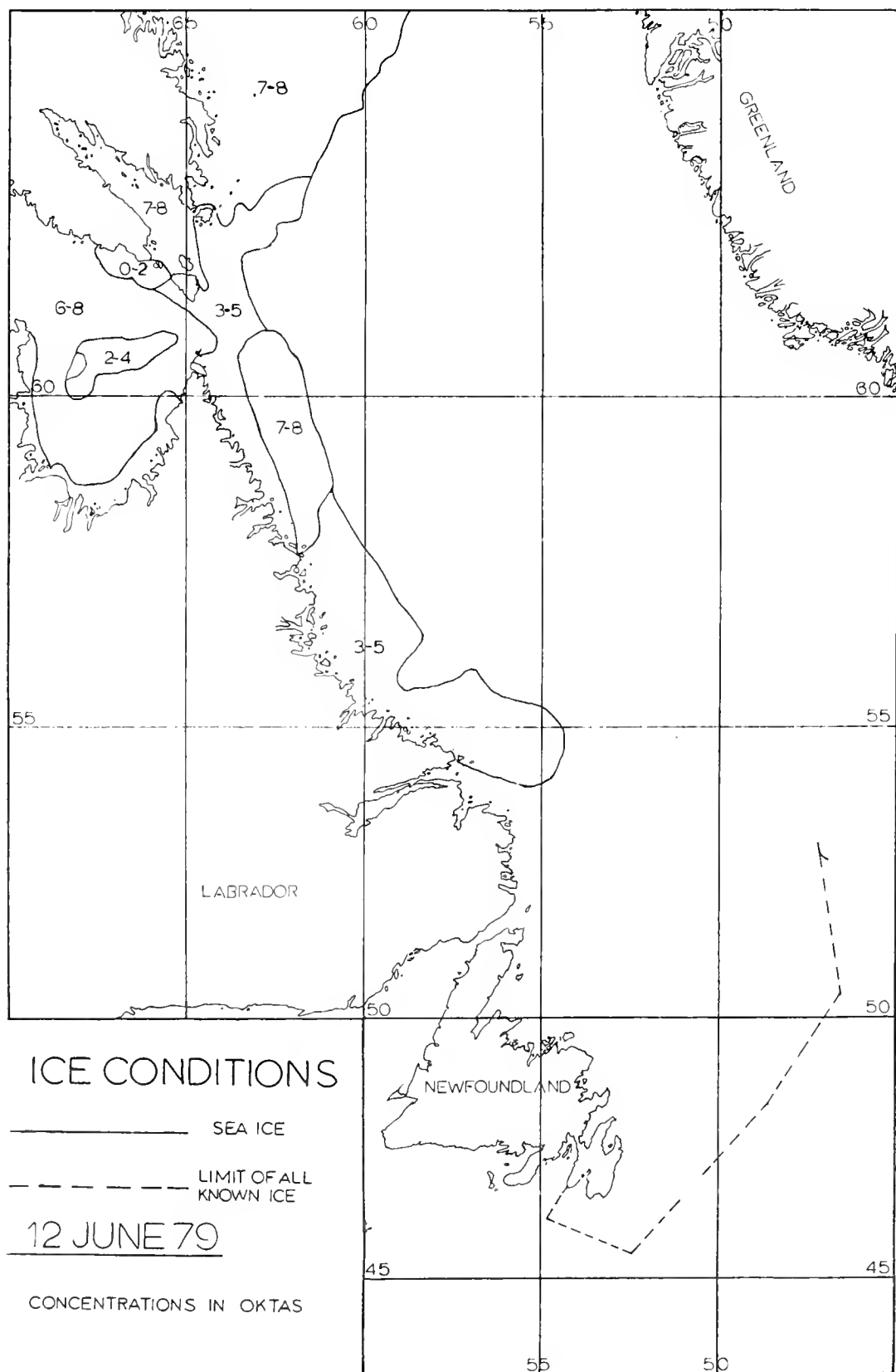


Figure 9



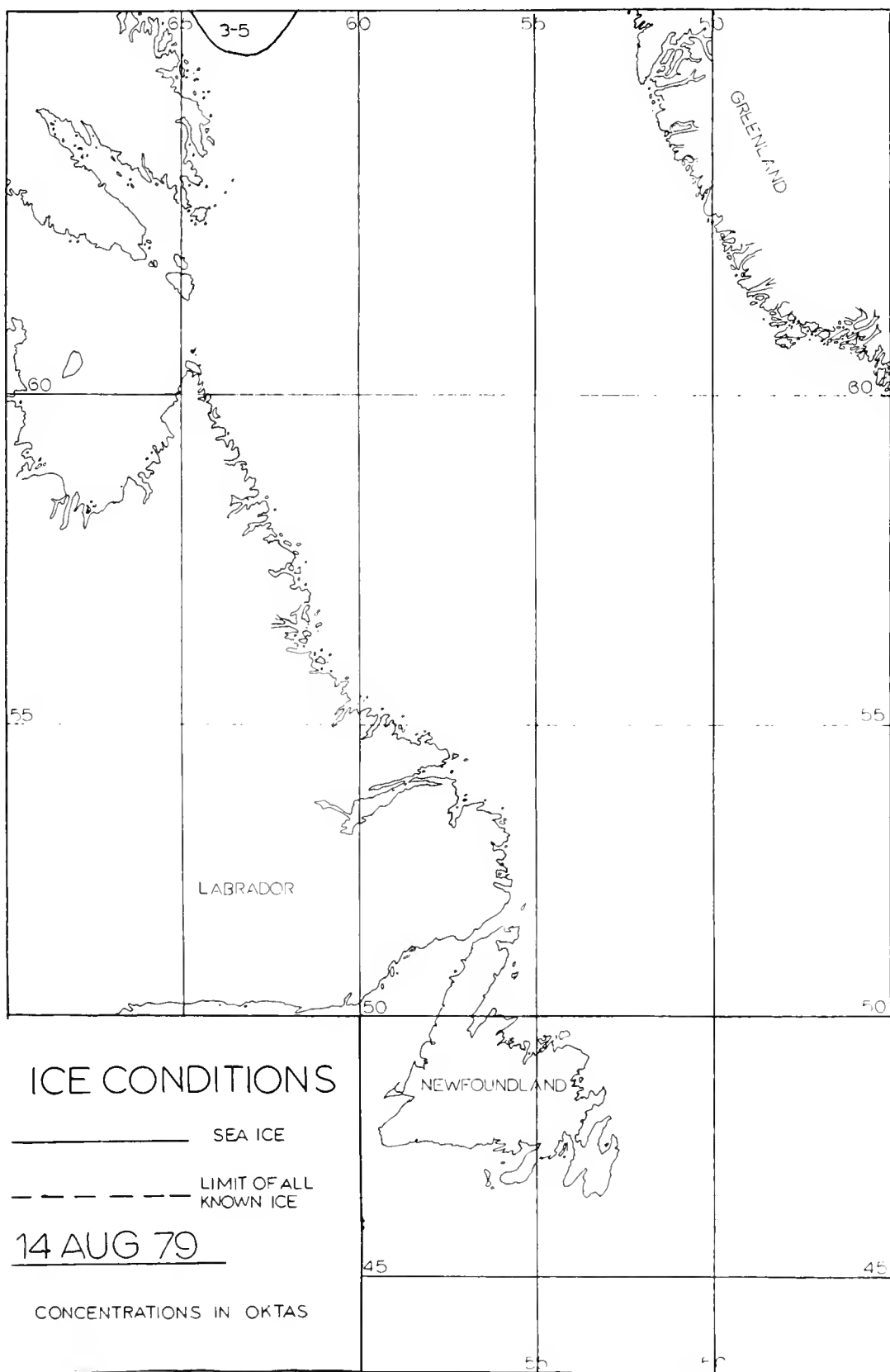


Figure 11

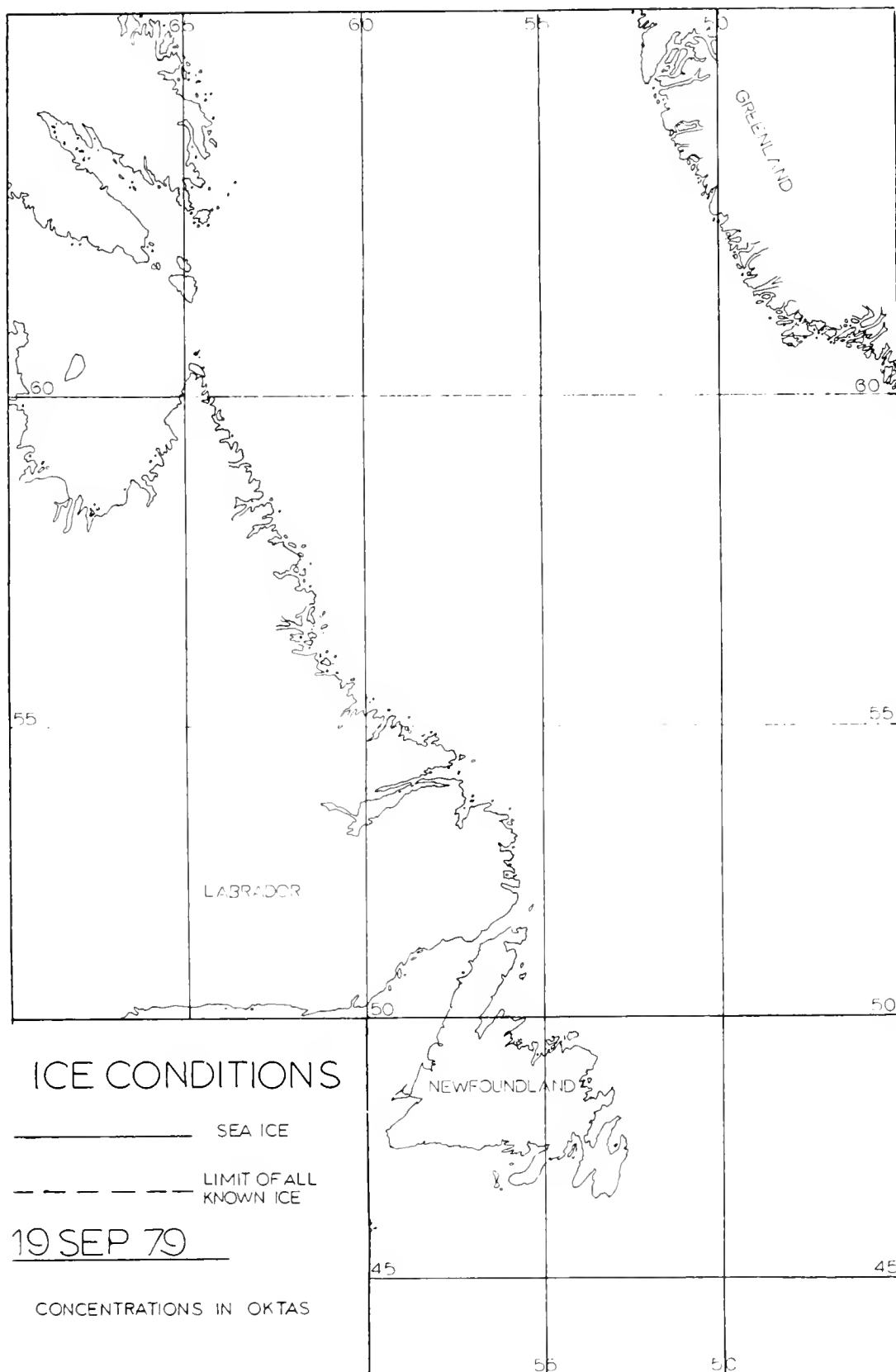


Figure 12

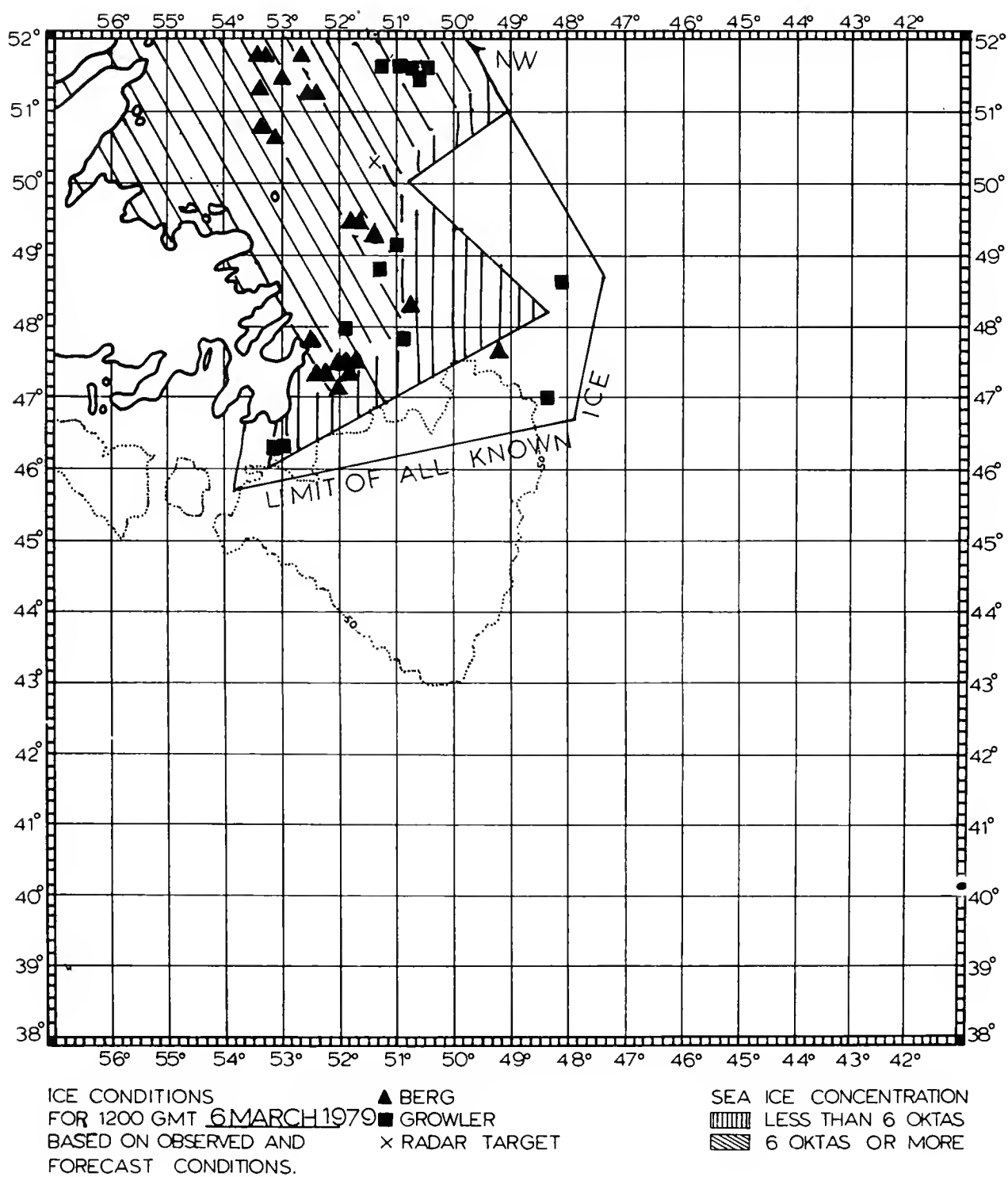


Figure 13



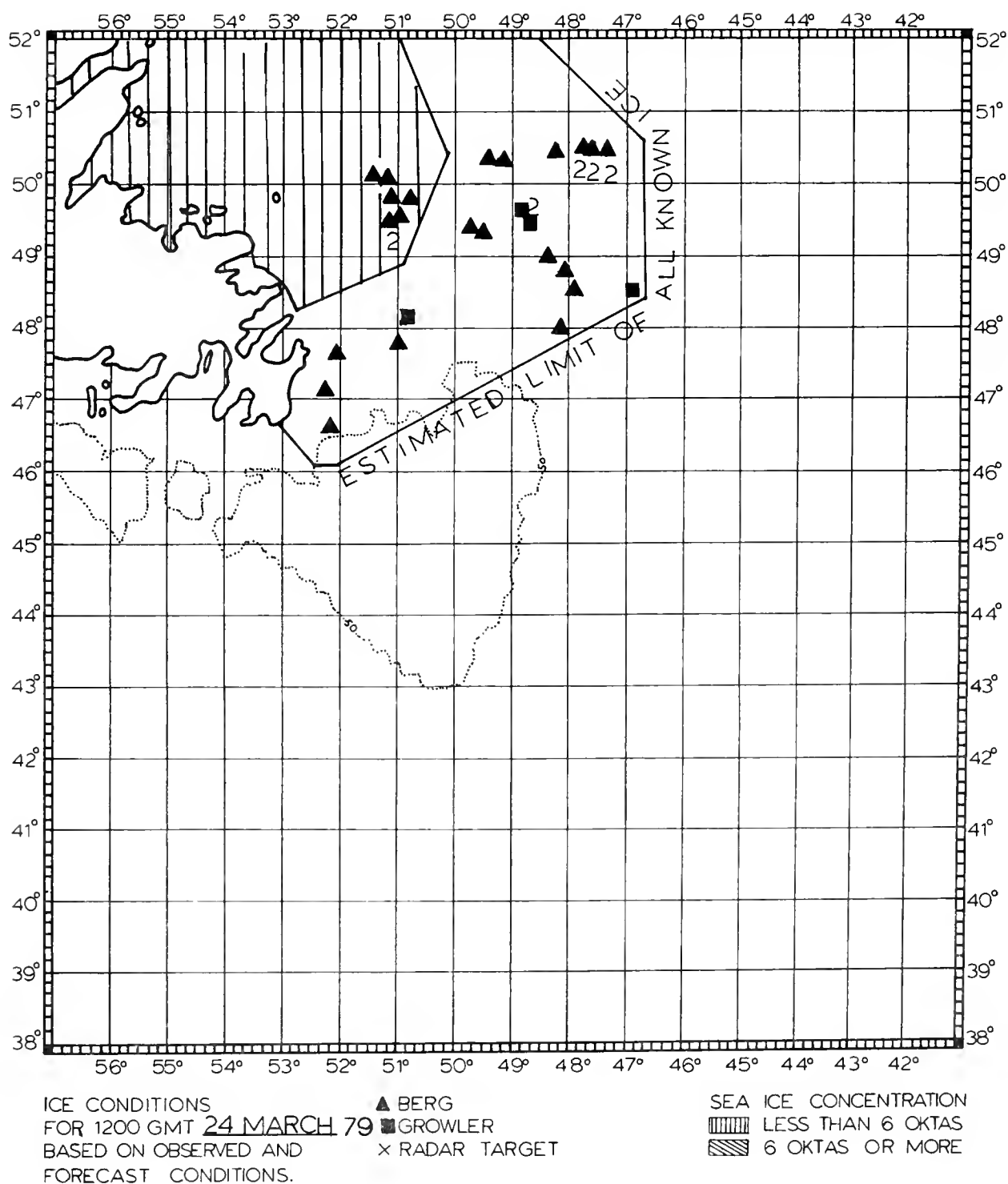


Figure 14

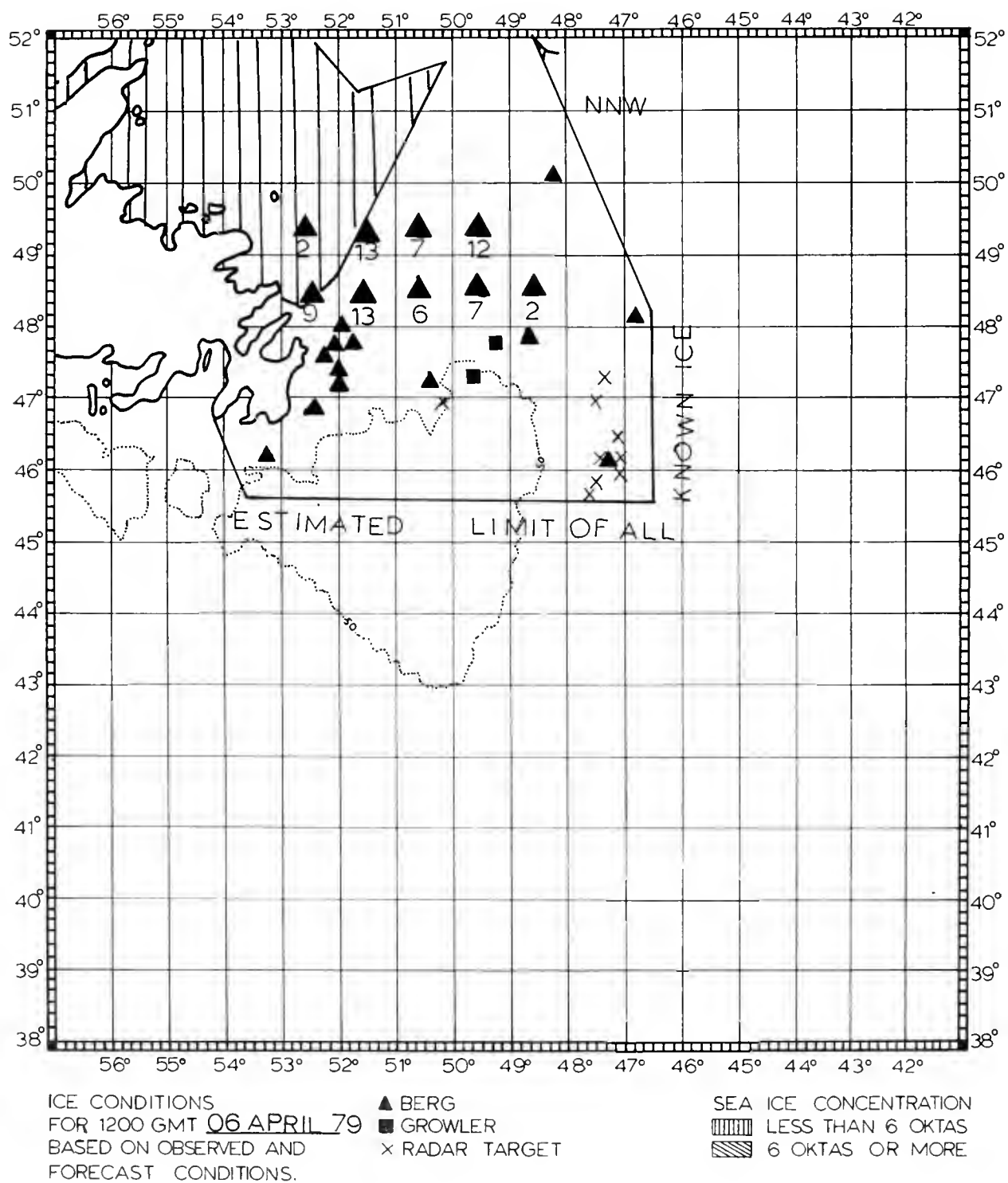
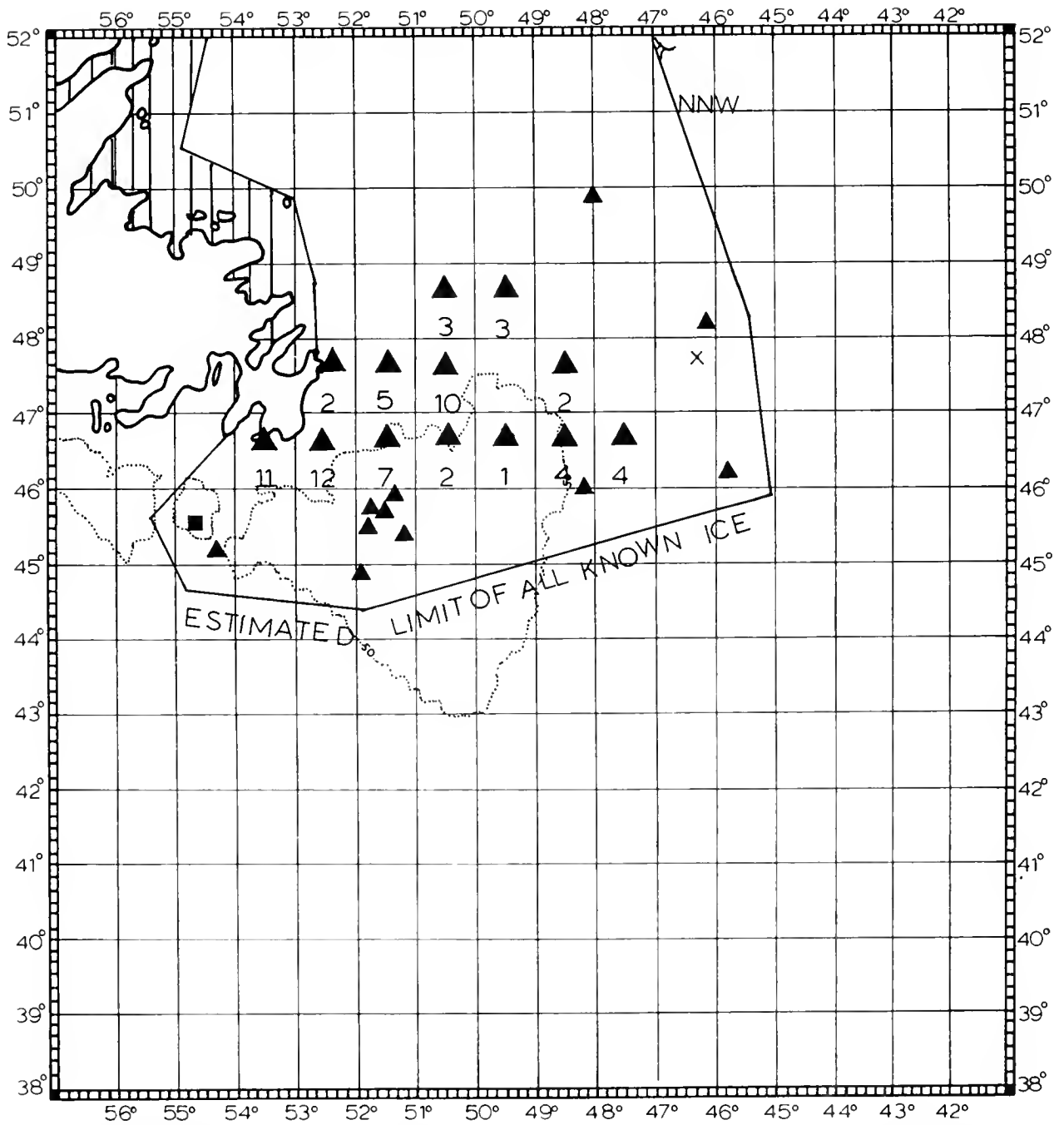


Figure 15



ICE CONDITIONS  
FOR 1200 GMT 1 MAY 1979  
BASED ON OBSERVED AND  
FORECAST CONDITIONS.

▲ BERG  
■ GROWLER  
x RADAR TARGET

SEA ICE CONCENTRATION  
LESS THAN 6 OKTAS  
6 OKTAS OR MORE

Figure 16

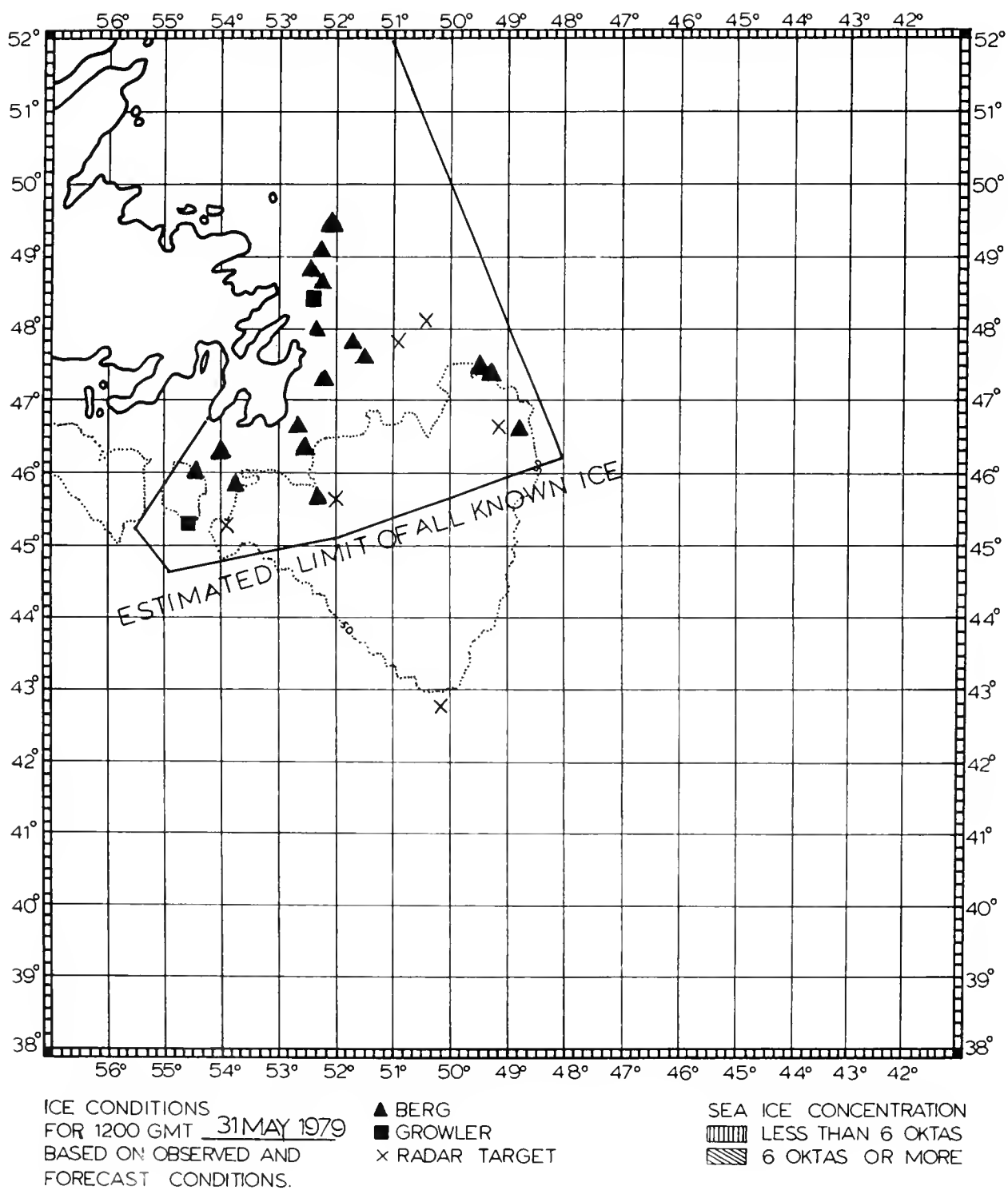


Figure 17

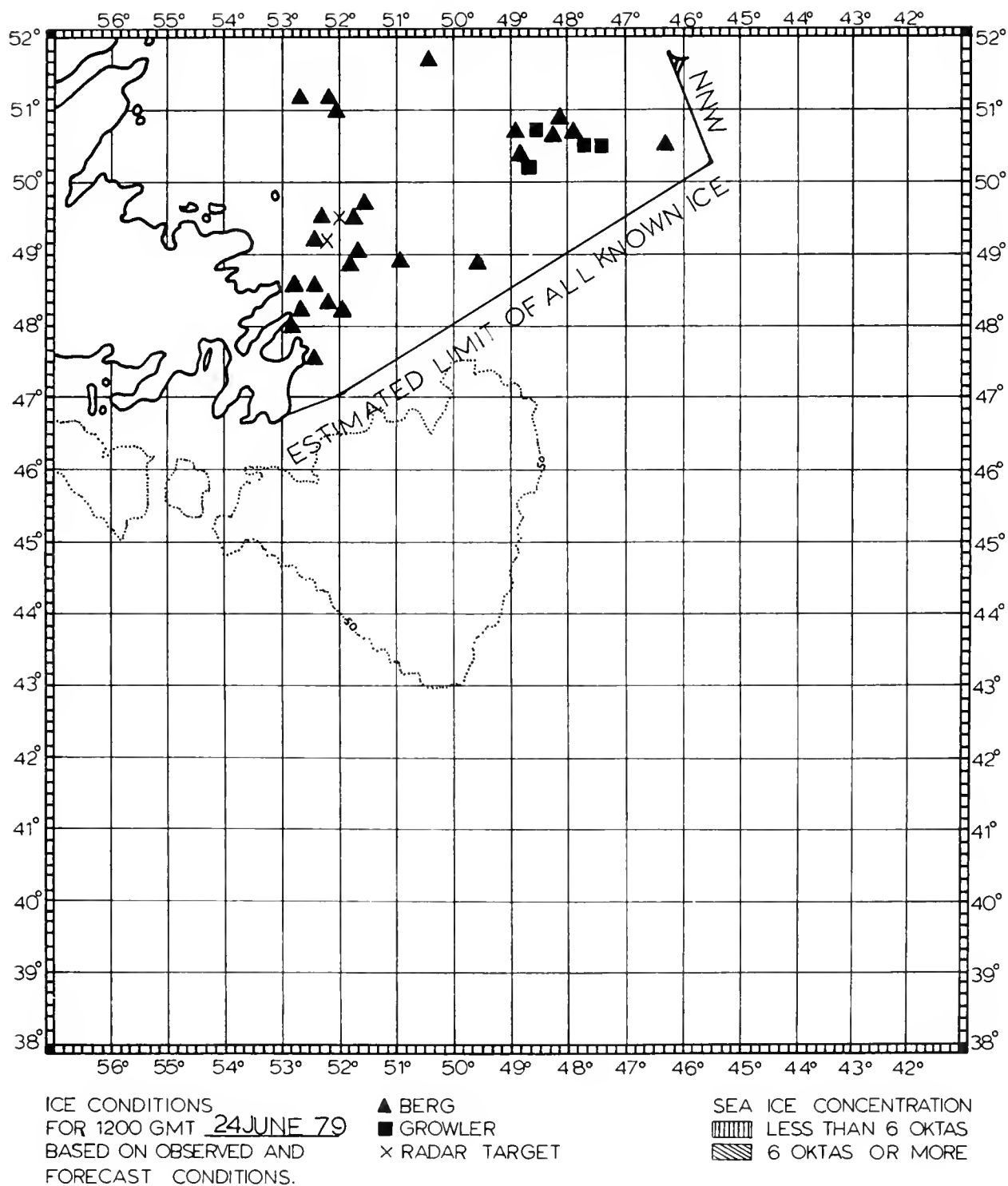


Figure 18

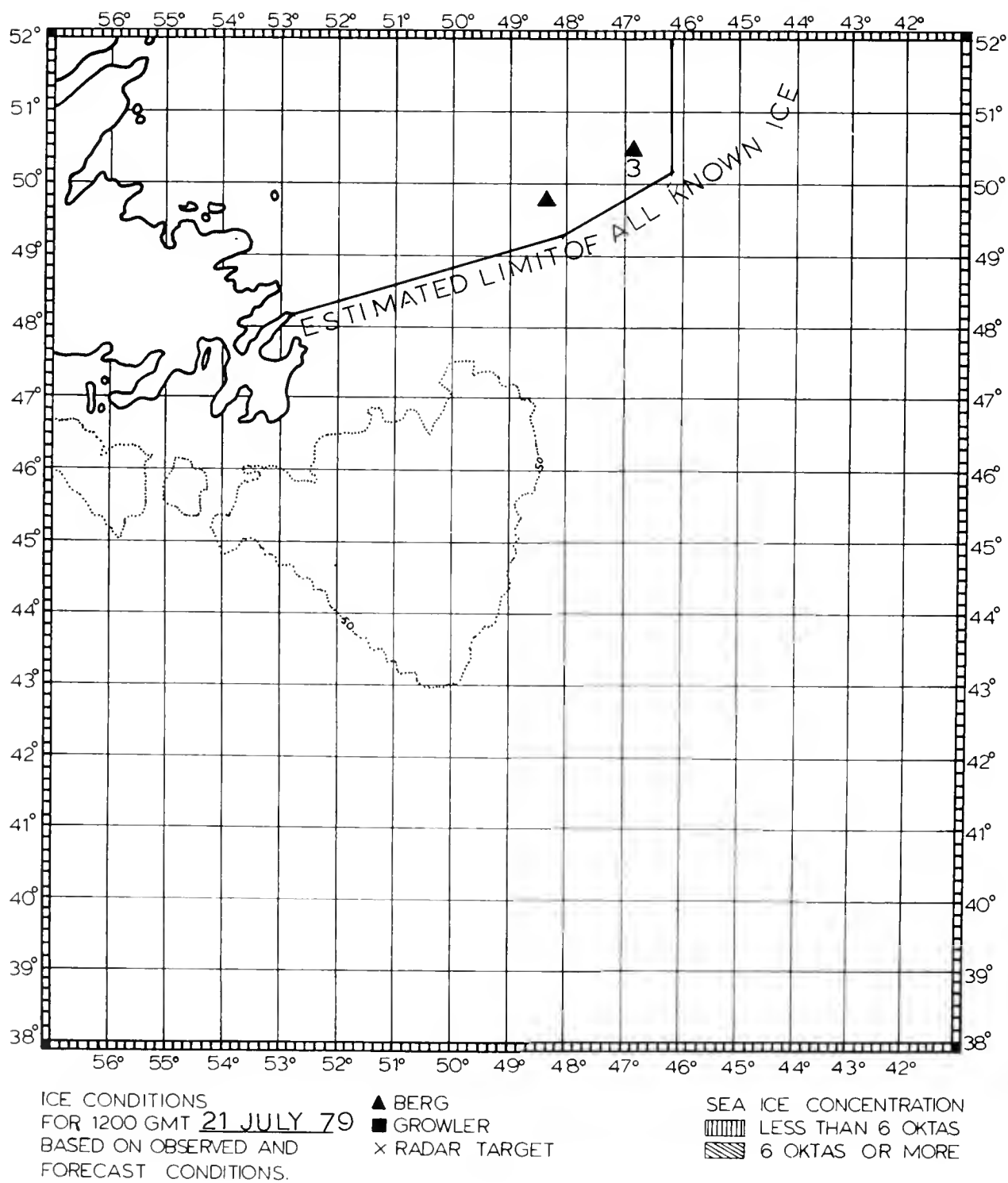


Figure 19

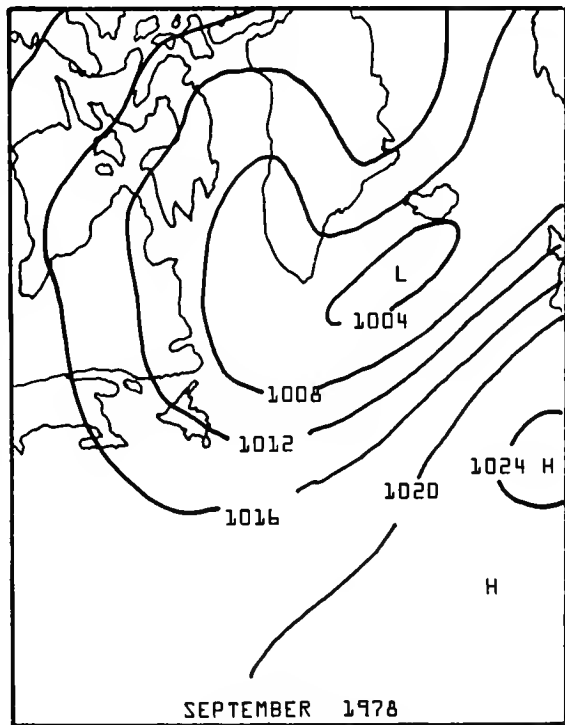
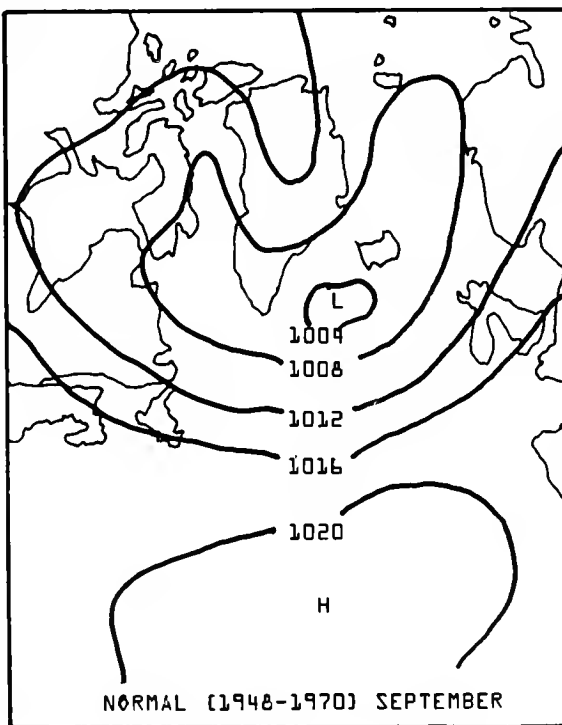


Figure 20  
September 1978—Normal and Monthly Average Surface Pressure in MB

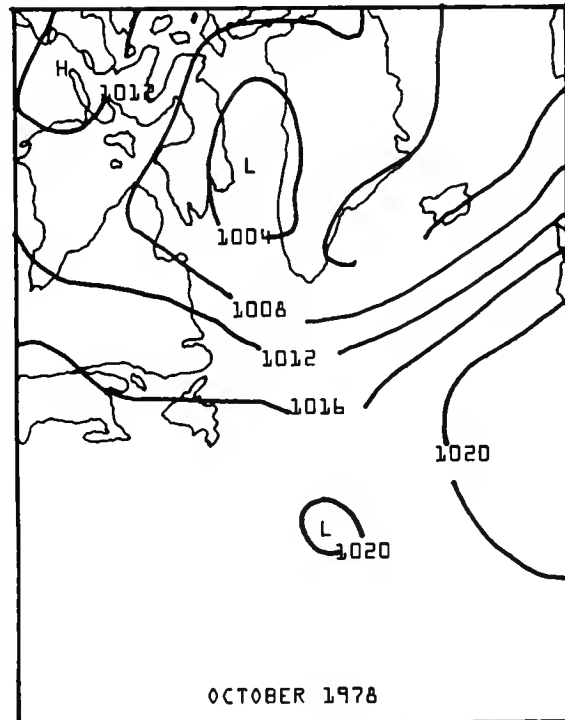
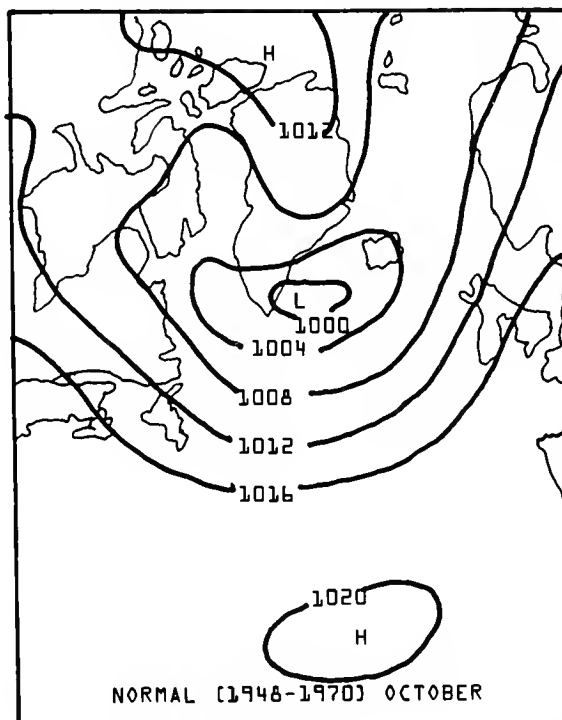


Figure 21  
October 1978—Normal and Monthly Average Surface Pressure in MB

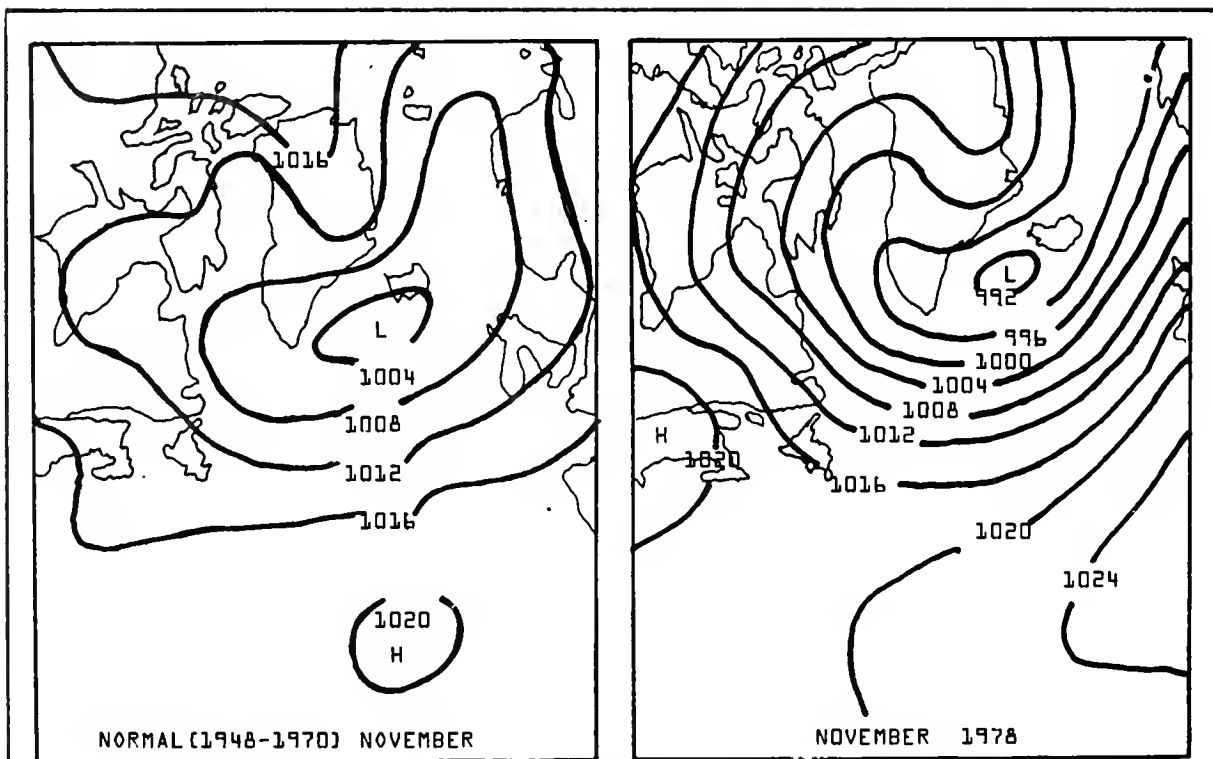


Figure 22  
November 1978—Normal and Monthly Average Surface Pressure in MB

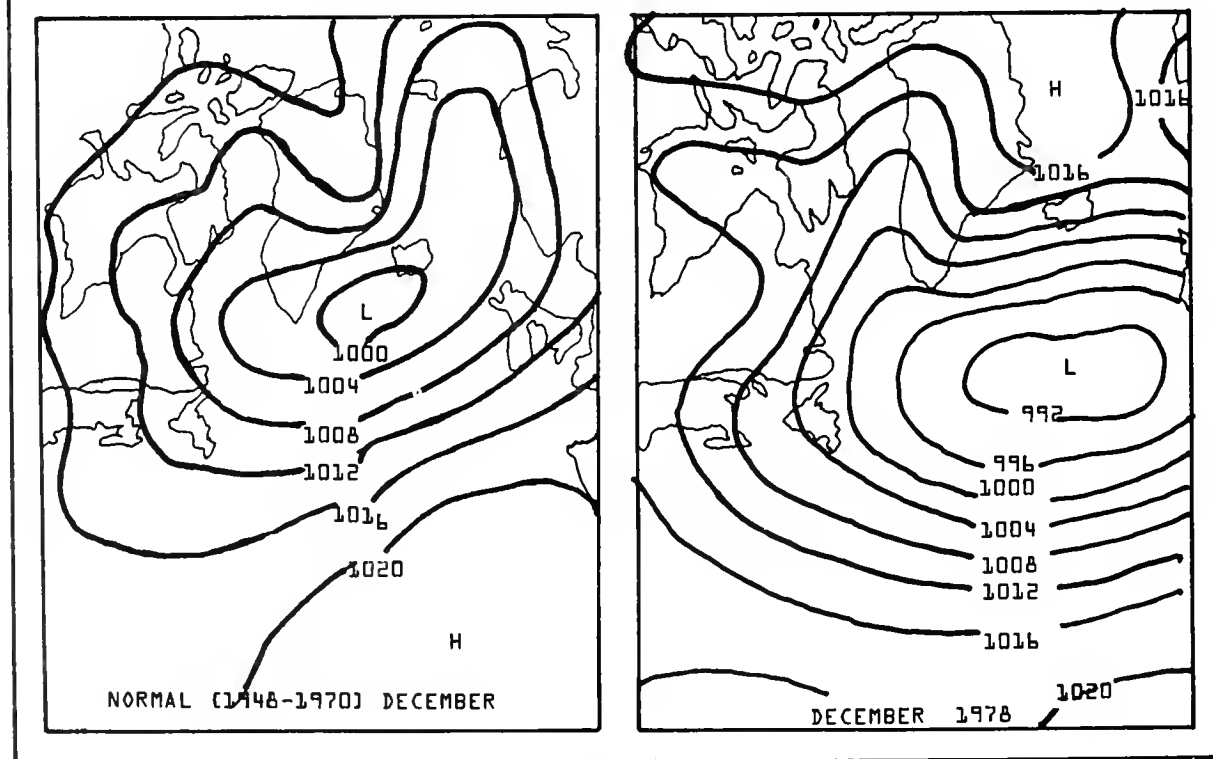


Figure 23  
December 1978—Normal and Monthly Average Surface Pressure in MB



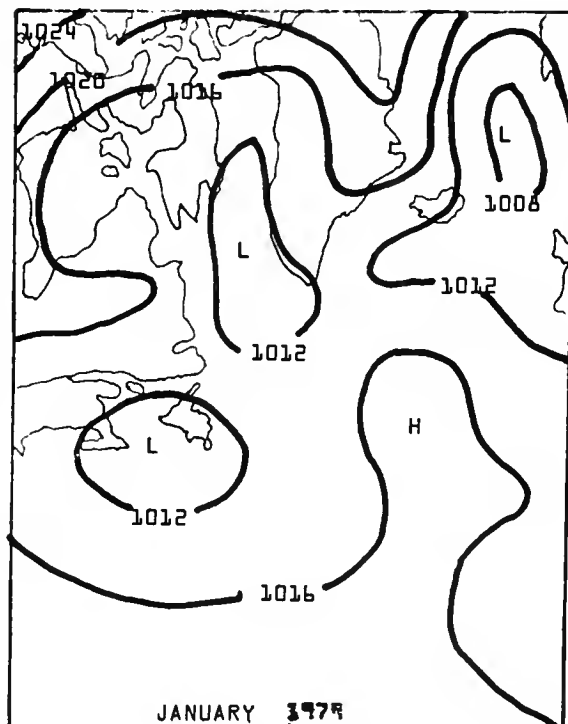
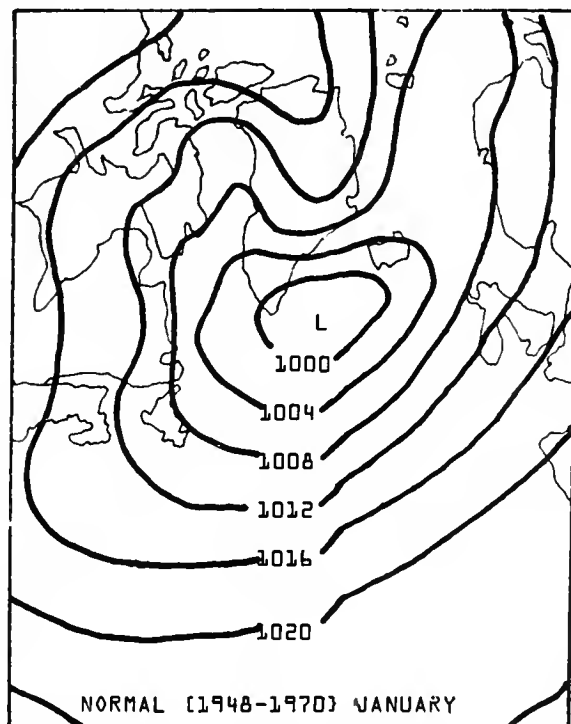


Figure 24  
January 1979—Normal and Monthly Average Surface Pressure in MB

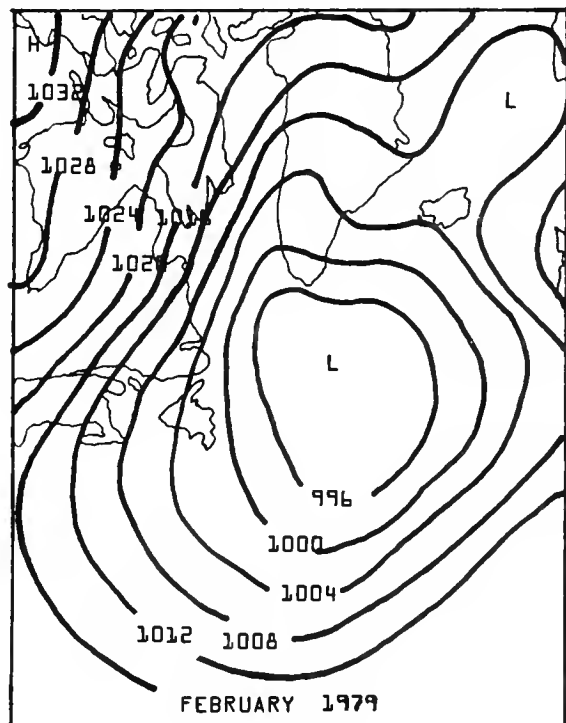
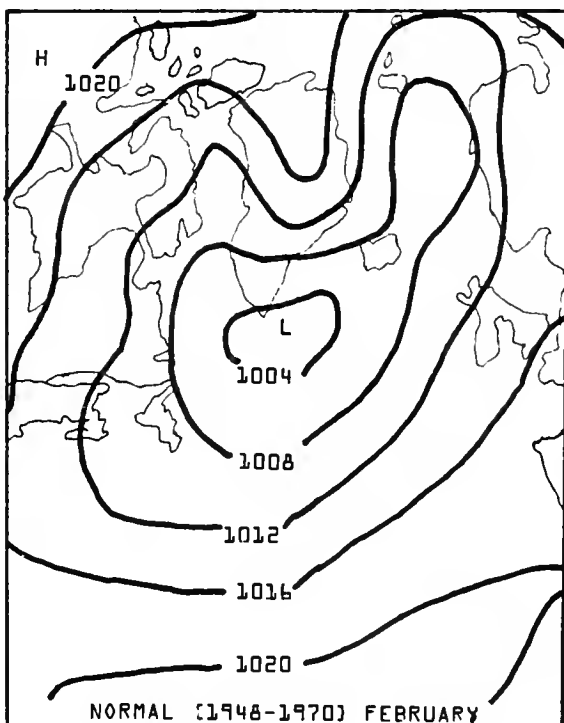


Figure 25  
February 1979—Normal and Monthly Average Surface Pressure in MB

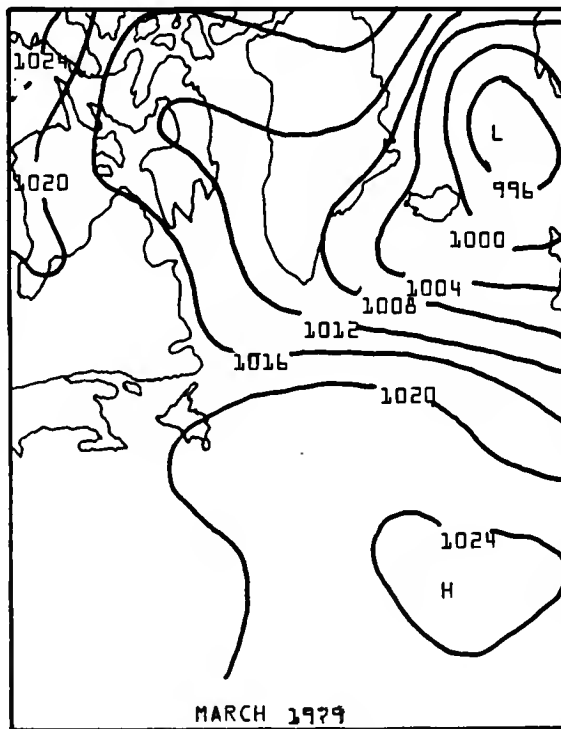
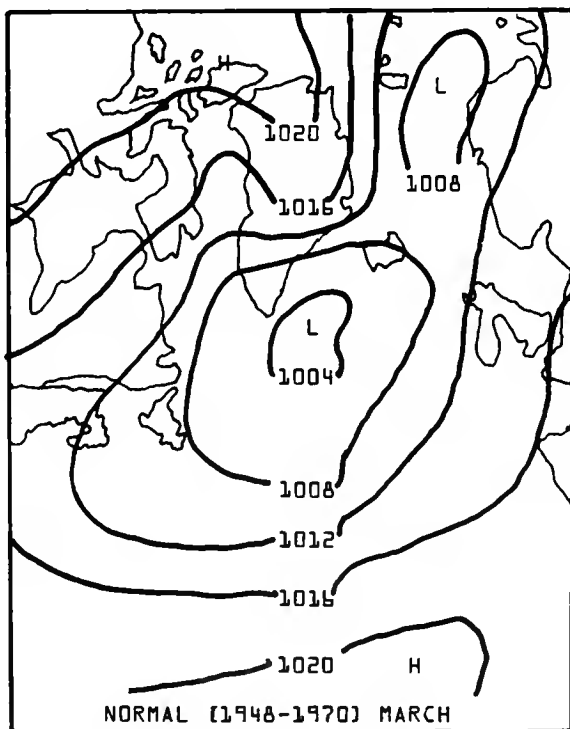


Figure 26  
March 1979—Normal and Monthly Average Surface Pressure in MB

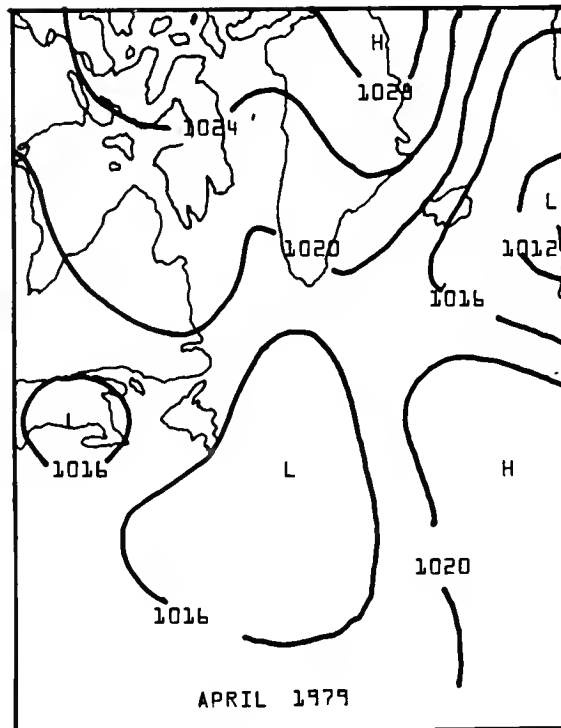
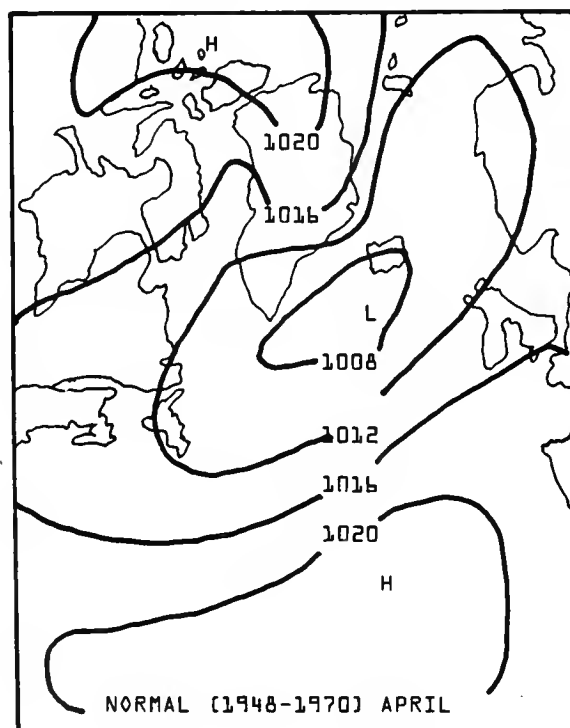


Figure 27  
April 1979—Normal and Monthly Average Surface Pressure in MB

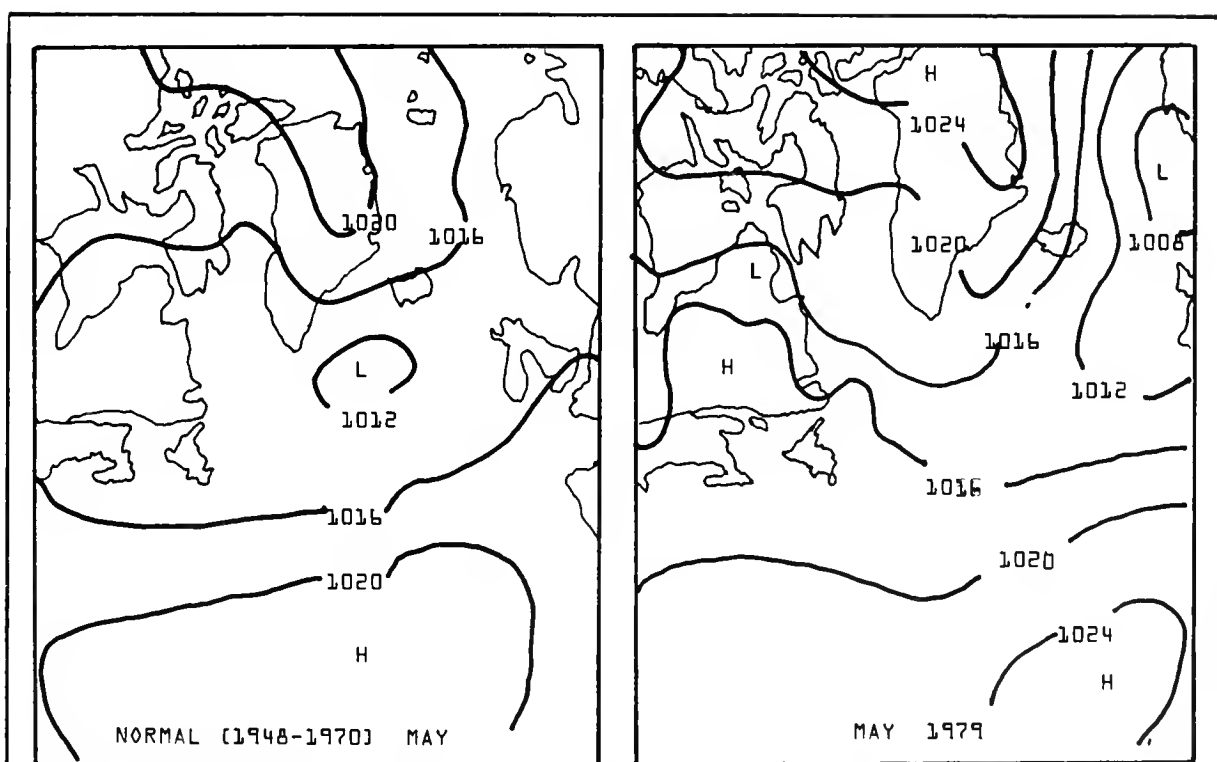


Figure 28  
May 1979—Normal and Monthly Average Surface Pressure in MB

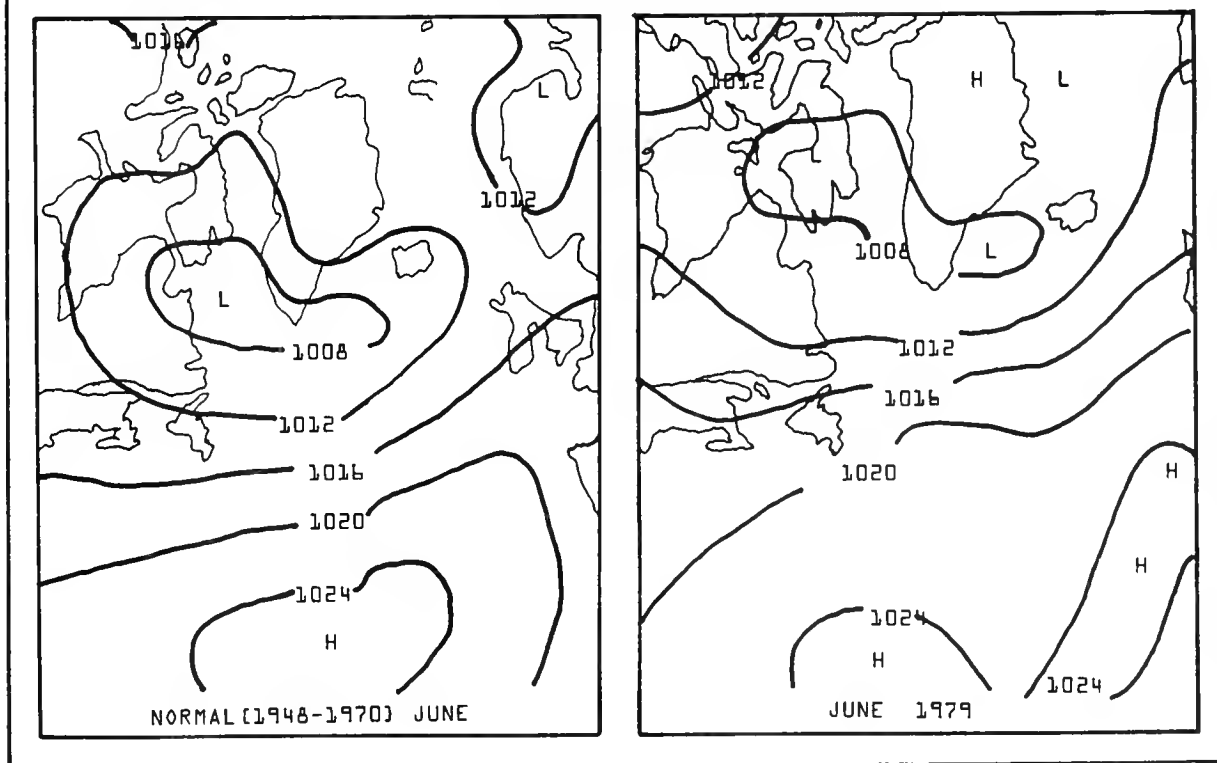


Figure 29  
June 1979—Normal and Monthly Average Surface Pressure in MB

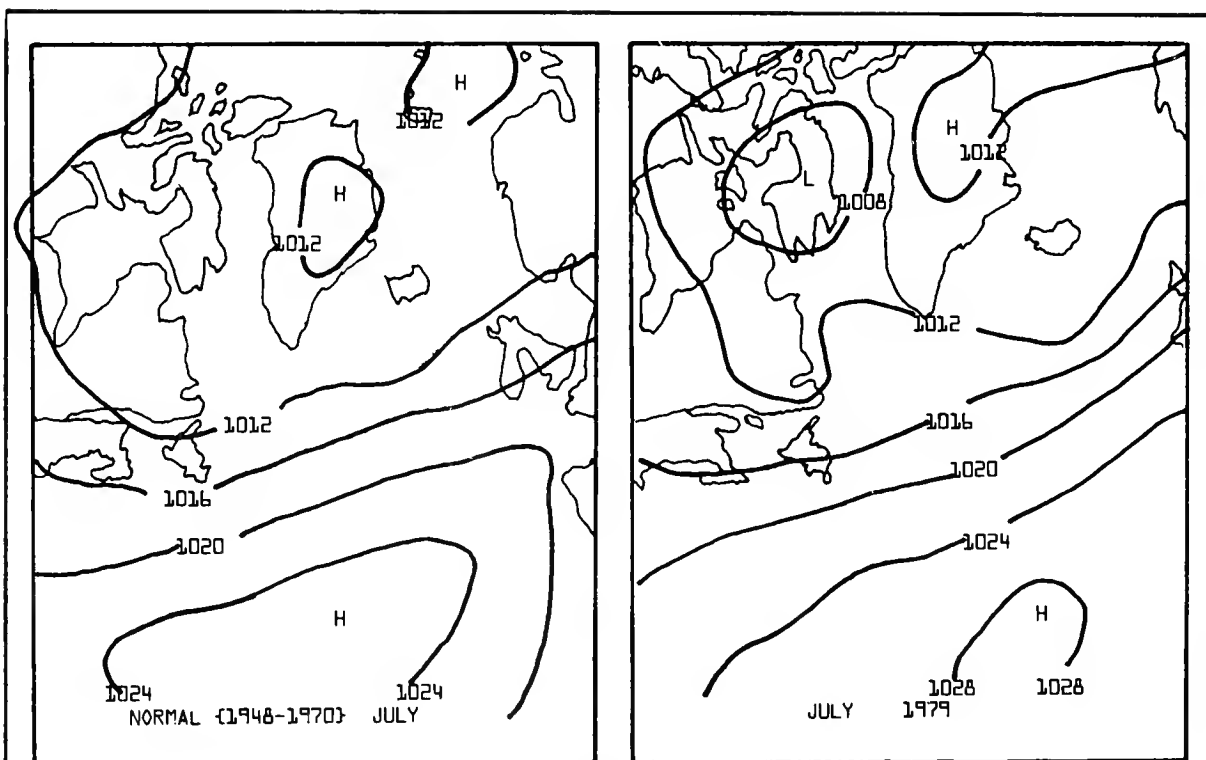


Figure 30  
July 1979—Normal and Monthly Average Surface Pressure in MB

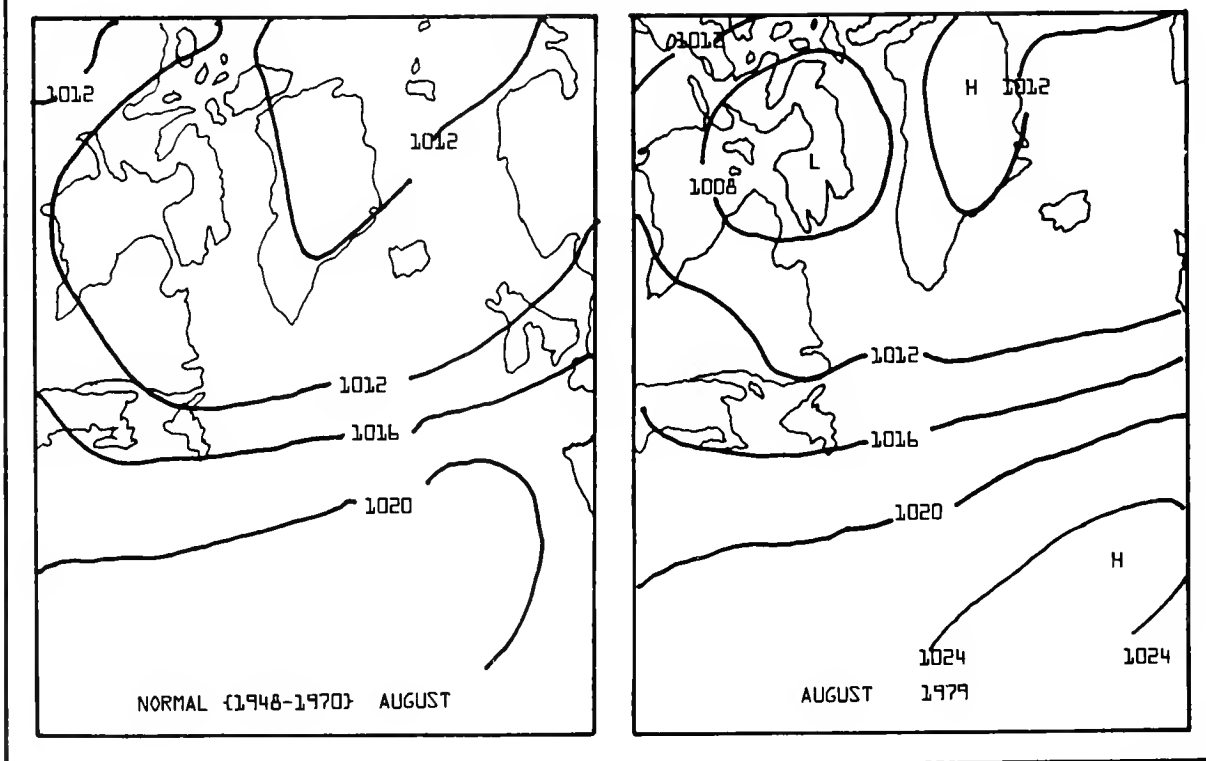


Figure 31  
August 1979—Normal and Monthly Average Surface Pressure in MB

## APPENDIX A CONTRIBUTING VESSELS

| <i>SHIP'S<br/>NAME</i>   | <i>COUNTRY OF<br/>REGISTRY</i> | <i>ICE<br/>REPORTS</i> | <i>SST<br/>REPORTS</i> |
|--------------------------|--------------------------------|------------------------|------------------------|
| Nememcha .....           | Algeria .....                  |                        | 3                      |
| Petimata .....           | Bulgaria .....                 | 1                      |                        |
| Algonquin .....          | Canada .....                   | 2                      | 4                      |
| Bartlett .....           | Canada .....                   | 1                      |                        |
| Breton Shore .....       | Canada .....                   | 1                      |                        |
| Federal Avalon .....     | Canada .....                   | 2                      |                        |
| Hudson .....             | Canada .....                   | 3                      |                        |
| Imperial Arcadia .....   | Canada .....                   | 1                      |                        |
| Janie B. ....            | Canada .....                   | 1                      |                        |
| Kathy C. ....            | Canada .....                   | 1                      |                        |
| Mare Placido .....       | Canada .....                   |                        | 1                      |
| NFLD Cont .....          | Canada .....                   | 3                      |                        |
| Nonia .....              | Canada .....                   | 3                      |                        |
| Hadan .....              | Cyprus .....                   | 1                      |                        |
| Belgium .....            | Czechoslovakia .....           | 1                      |                        |
| Artic Skou .....         | Denmark .....                  | 3                      |                        |
| Kara .....               | Finland .....                  | 1                      | 19                     |
| Peter .....              | Finland .....                  |                        | 5                      |
| Atlantic Cognac .....    | France .....                   | 1                      |                        |
| Denmarch .....           | France .....                   | 2                      |                        |
| Anne Marie Krueger ..... | Germany .....                  | 2                      | 2                      |
| Balder Alver .....       | Germany .....                  |                        | 2                      |
| Danis Getty .....        | Germany .....                  |                        | 1                      |
| Fjellnes .....           | Germany .....                  | 1                      |                        |
| Koeln Express .....      | Germany .....                  | 3                      |                        |
| Dynamic Sailor .....     | Greece .....                   | 1                      | 5                      |
| Evpo Sailor .....        | Greece .....                   | 2                      |                        |
| Irenes Ideal .....       | Greece .....                   |                        | 1                      |
| Konkar Indomitable ..... | Greece .....                   | 1                      | 2                      |
| Meltemi 2 .....          | Greece .....                   |                        | 4                      |
| Zannis Machlos .....     | Greece .....                   |                        | 2                      |
| Tenadores .....          | Honduras .....                 |                        | 3                      |
| Bakkafoss .....          | Iceland .....                  | 18                     | 52                     |
| Joekulfell .....         | Iceland .....                  | 1                      |                        |
| Selfoss .....            | Iceland .....                  |                        | 5                      |
| Skaftafell .....         | Iceland .....                  | 1                      |                        |
| Studlafoss .....         | Iceland .....                  | 2                      |                        |
| Jayagayatri .....        | India .....                    | 2                      | 4                      |
| Jhanskirani .....        | India .....                    |                        | 1                      |
| Loknanya .....           | India .....                    |                        | 1                      |
| Samratashok .....        | India .....                    |                        | 6                      |

| <i>SHIP'S<br/>NAME</i>          | <i>COUNTRY OF<br/>REGISTRY</i> | <i>ICE<br/>REPORTS</i> | <i>SST<br/>REPORTS</i> |
|---------------------------------|--------------------------------|------------------------|------------------------|
| Jordan Kanikolova . . . . .     | Indonesia . . . . .            |                        | 2                      |
| Mezada . . . . .                | Israel . . . . .               | 2                      |                        |
| Adria Maru . . . . .            | Japan . . . . .                |                        | 6                      |
| Miho Maru . . . . .             | Japan . . . . .                |                        | 1                      |
| Teruoku Maru . . . . .          | Japan . . . . .                |                        | 10                     |
| Amax Miner . . . . .            | Liberia . . . . .              | 2                      |                        |
| Artadi . . . . .                | Liberia . . . . .              | 4                      | 4                      |
| Corner Brook . . . . .          | Liberia . . . . .              |                        | 3                      |
| Eastern Hazel . . . . .         | Liberia . . . . .              |                        | 5                      |
| Federal Hudson . . . . .        | Liberia . . . . .              | 1                      |                        |
| Garden Gate . . . . .           | Liberia . . . . .              |                        | 3                      |
| Gem . . . . .                   | Liberia . . . . .              | 3                      | 22                     |
| Gemini Pioneer . . . . .        | Liberia . . . . .              | 2                      |                        |
| Kansas Getty . . . . .          | Liberia . . . . .              |                        | 25                     |
| Kathleen . . . . .              | Liberia . . . . .              |                        | 7                      |
| Liberian Albertwill . . . . .   | Liberia . . . . .              |                        | 2                      |
| Lupus . . . . .                 | Liberia . . . . .              |                        | 1                      |
| Magic Sun . . . . .             | Liberia . . . . .              | 1                      |                        |
| Navios Courier . . . . .        | Liberia . . . . .              |                        | 8                      |
| Pilot Trader . . . . .          | Liberia . . . . .              | 1                      |                        |
| Ploto . . . . .                 | Liberia . . . . .              |                        | 5                      |
| Ralu . . . . .                  | Liberia . . . . .              |                        | 3                      |
| Santal . . . . .                | Liberia . . . . .              | 1                      |                        |
| Torrent . . . . .               | Liberia . . . . .              |                        | 9                      |
| Weser . . . . .                 | Liberia . . . . .              |                        | 6                      |
| World News . . . . .            | Liberia . . . . .              |                        | 1                      |
| Dryso . . . . .                 | Norway . . . . .               | 1                      | 1                      |
| Jacara . . . . .                | Norway . . . . .               |                        | 2                      |
| Norwegian Laurita . . . . .     | Norway . . . . .               | 1                      | 1                      |
| Norwegian Tamesis . . . . .     | Norway . . . . .               | 3                      | 3                      |
| Stove Trader . . . . .          | Norway . . . . .               | 4                      | 11                     |
| Charlotte Bastian . . . . .     | Panama . . . . .               | 3                      | 4                      |
| Discoverer Seven Seas . . . . . | Panama . . . . .               |                        | 6                      |
| Margitta . . . . .              | Panama . . . . .               | 1                      |                        |
| Weyroc . . . . .                | Panama . . . . .               |                        | 11                     |
| Ammbrow . . . . .               | Poland . . . . .               | 1                      |                        |
| Stefan Batory . . . . .         | Poland . . . . .               | 10                     |                        |
| Zambrze . . . . .               | Poland . . . . .               | 1                      |                        |
| Ziemia Olsztynska . . . . .     | Poland . . . . .               | 1                      |                        |
| Viseu . . . . .                 | Romania . . . . .              | 6                      | 6                      |
| Hinrich Oldendorff . . . . .    | Singapore . . . . .            |                        | 1                      |
| Macarena . . . . .              | Singapore . . . . .            | 1                      | 3                      |
| Marques DeBolarque . . . . .    | Spain . . . . .                | 1                      |                        |
| Atlantic Premier . . . . .      | Sweden . . . . .               | 13                     | 3                      |
| Atlantic Saga . . . . .         | Sweden . . . . .               | 3                      | 3                      |
| Atlantic Wasa . . . . .         | Sweden . . . . .               | 4                      | 5                      |
| Ivan Gorthan . . . . .          | Sweden . . . . .               | 1                      |                        |
| Marine Atlantica . . . . .      | Sweden . . . . .               | 1                      |                        |
| Stolt Castle . . . . .          | Sweden . . . . .               | 1                      |                        |
| Susanne . . . . .               | Sweden . . . . .               |                        | 17                     |
| Romandie . . . . .              | Switzerland . . . . .          |                        | 5                      |

| <i>SHIPS<br/>NAME</i>          | <i>COUNTRY OF<br/>REGISTRY</i> | <i>ICE<br/>REPORTS</i> | <i>SST<br/>REPORTS</i> |
|--------------------------------|--------------------------------|------------------------|------------------------|
| Silveretta .....               | Switzerland .....              |                        | 1                      |
| Asian Reward .....             | United Kingdom .....           |                        | 1                      |
| Athel Monarch .....            | United Kingdom .....           |                        | 1                      |
| Atlantic Prosper .....         | United Kingdom .....           | 1                      | 1                      |
| British Wasa .....             | United Kingdom .....           |                        | 4                      |
| Cast Seal .....                | United Kingdom .....           | 1                      |                        |
| C.P. Discoverer .....          | United Kingdom .....           | 1                      |                        |
| C.P. Trader .....              | United Kingdom .....           | 4                      |                        |
| C.P. Voyager .....             | United Kingdom .....           | 2                      |                        |
| Fort Hamilton .....            | United Kingdom .....           | 5                      |                        |
| Kayeson .....                  | United Kingdom .....           |                        | 3                      |
| Kildare .....                  | United Kingdom .....           |                        | 6                      |
| La Costa .....                 | United Kingdom .....           |                        | 4                      |
| La Ensenada .....              | United Kingdom .....           |                        | 6                      |
| Manchester Concept .....       | United Kingdom .....           | 2                      |                        |
| Manchester Concorde .....      | United Kingdom .....           | 3                      | 2                      |
| Manchester Renown .....        | United Kingdom .....           | 6                      |                        |
| Reynoulds .....                | United Kingdom .....           | 1                      |                        |
| Roebuck .....                  | United Kingdom .....           | 1                      | 1                      |
| Rubens .....                   | United Kingdom .....           | 1                      |                        |
| Salters Gate .....             | United Kingdom .....           | 1                      | 4                      |
| Tsuru Arrow .....              | United Kingdom .....           | 1                      | 6                      |
| W.M. Neal .....                | United Kingdom .....           | 1                      |                        |
| Detroyat .....                 | USSR .....                     |                        | 1                      |
| Martha Progress .....          | USSR .....                     |                        | 2                      |
| Evergreen (USCGC) .....        | USA .....                      | 7                      | 26                     |
| Pioneer Crusader .....         | USA .....                      | 1                      |                        |
| Sealift Indian Ocean (USNS) .. | USA .....                      | 1                      |                        |
| Sealand Galloway .....         | USA .....                      | 1                      |                        |
| Westwind (USCGC) .....         | USA .....                      | 3                      |                        |
| TOTAL .....                    |                                | 180                    | 397                    |





## **APPENDIX B**

### **OCEANOGRAPHIC CONDITIONS**

**LT J. J. MURRAY, U.S. Coast Guard**

#### **BACKGROUND**

The 1979 season witnessed significant changes to the Ice Patrol mode of operation. In February 1979 a new computer model to predict the drift of icebergs was accepted as operational by Commander, International Ice Patrol (CIIP) and was used throughout the season. The IIP current file used in this model was also updated to include information obtained since its establishment in 1964. Perhaps most significantly, traditional standard oceanographic surveys were replaced with satellite tracked buoys as the primary method of measuring currents and verifying the IIP current file.

#### **A NEW ICEBERG DRIFT PREDICTION MODEL**

During the 1979 ice season a new computer model was used to predict the drift of icebergs. The drift model, termed IBERG, was developed at the Coast Guard Oceanographic Unit during the fall of 1977, and was tested during the 1978 ice season. The model was then integrated into the operational Ice Patrol system and accepted for operational use in February 1979.

IBERG forecasts the drift of an iceberg by solving differential equations of motion that express the forces acting on the iceberg. The forces included are the Coriolis force, the wind drag, the water drag, and a gravitational component due to the slope of the sea surface. The equations are solved by a fourth order Runge-Kutta method using a variable time step to insure a convergent solution.

The primary improvement over past modeling efforts is in the calculation of the water drag, which is usually the dominant forcing term. The water drag is proportional to the iceberg cross-sectional area and the square of the velocity of the ice relative to the water. The water current used is the sum of a mean value and a wind driven component that is derived from a solution to a time

dependent Ekman equation using a 96 hour wind history. The average Ekman current in each of four layers of the water column is determined. The water drag in each layer is calculated and the results are summed to yield the total drag over the iceberg. This approach allows different sizes of icebergs to be modeled by varying the cross-sectional area in each layer. Small icebergs float in the near surface layer which is strongly affected by the local wind, while large icebergs have much of their area below the wind-influenced layers. Seven iceberg sizes are allowed in the operational form of IBERG.

A continuing evaluation of IBERG is being conducted. Observed iceberg drift tracks are compared to model generated paths to estimate the model accuracy. Initial results suggest that the primary limitation to accurate forecasts lies in the inputs to the model, most notably the current and wind fields used in the drag calculations.

#### **IIP CURRENTS**

The IIP current file extends from 40°N to 52°N and from 39°W to 57°W. Within this area are two regions. The currents are best known in the first region in the proximity of the Labrador Current where standard oceanographic surveys were conducted under the auspices of CIIP every season from 1934 to 1978 (except during World War II). Usually 2 or 3 surveys were made each season. These surveys yielded a large data base which was used in 1964 (Soule, 1964) to compile "normal" dynamic topography charts representing the average dynamic heights observed up to that time. From these charts normal geostrophic velocities were calculated. The normal values are useful because the general oceanic circulation in the Ice Patrol area is similar from year to year. The normals were reviewed and updated in 1976 (Scobie and Schultz, 1976) and it is basically these updated currents which were used during the 1979 season. The second region is composed of all other

currents within the IIP current file. They were compiled by CIIP from various sources constituting a much lower quality data base than that used for the first region.

Contained in Appendix A is a listing of the 1979 IIP current file. The current direction in degrees true and the speed in cm/s ( $51 \text{ cm/s} = 1 \text{ knot}$ ) are listed for every 20 minutes of latitude and longitude except in the vicinity of the Labrador Current where the longitude spacing is 10 minutes. This finer grid encompasses all of region 1 and a small part of region 2. Region 1 currents in Appendix A are indicated by asterisks (\*). There was only one current file for the entire 1979 season as opposed to four files which were previously used, one each for April, May, June and July. It was felt that monthly variation of currents within a given season was not large enough to warrant more than one IIP current file.

### **SATELLITE TRACKED BUOYS**

The Oceanographic Unit began examining the feasibility of using satellite tracked drifting buoys to measure currents as early as 1975. In 1976, 1977, and 1978 satellite tracked buoy transmitting terminals (BTT's) were deployed in the Ice Patrol area and tracked using the NIMBUS-6 satellite system. Positions obtained were analyzed to determine currents. The results of these tests were so successful that the Oceanographic Unit presented a position paper at the 1978 IIP Planning Conference stating that BTT's could replace standard oceanographic surveys as the method for gathering current information to evaluate the IIP currents. This idea was accepted by CIIP and 1979 became the first season since 1948 during which no oceanographic surveys were made by a Coast Guard vessel in support of IIP operations.

The satellite system used during the 1979 Ice Patrol season was TIROS-N. When the satellite is within sight of a BTT it records the data being transmitted on 416.65 MHz. This information is processed and encoded by the TIROS information processor and retransmitted almost instantaneously on the spacecraft beacon frequency, 136.77 MHz. The ground receiving station and the BTT must both be within line of sight of the satellite for this retransmission to be received at the ground station. In the fall of 1978 a prototype Local User Terminal (LUT) was established at the Oceanographic Unit to allow relatively independent and near real-time data reception. It is capable of receiving the transmissions of both the

NIMBUS-6 and TIROS-N satellites and processing them to obtain position and sensor data. With its present location in Washington, D.C., in the TIROS-N mode the LUT normally receives information from 2 satellite passes daily with the capability of locating BTT's anywhere within the IIP area. The maximum accuracy of the system with the incorporation of adequate reference beacons is about  $\pm 3 \text{ km}$  (1.6 nautical miles).

The cornerstone of the new current measuring scheme is the BTT's themselves. All BTT's used are in what is called the TIROS Oceanographic Drifter (TOD) configuration (Figure 1). This includes the basic buoy, window shade drogue, the drogue sensor, temperature sensor and battery monitor. The drogue extends from about 12 to 24 m below the sea surface and is designed to reduce buoy leeway as much as possible. The temperature sensor is accurate to within  $\pm 1.0^\circ\text{C}$  and provides valuable sea surface temperature data. During the 1979 season all BTT's were air deployed from Coast Guard HC-130 aircraft (although they can be ship deployed) utilizing a special air deployment package (Figures 1 and 2). The system is designed so that the BTT on a pallet is slid out the rear cargo door of the aircraft and parachutes to the sea surface. Water-activated explosive cutters cut away the parachute, and the specially designed hardware connecting the pallet to the BTT dissolves causing the pallet to fall away and the drogue to deploy. The entire process normally takes only a few minutes.

### **1979 OPERATIONS**

During the 1979 season 5 BTT's were deployed in support of IIP operations (Table 1). Three BTT's, 2605, 2600 and 2604, were deployed in the Labrador Current, BTT 2601 was deployed to the east of the Labrador Current and BTT 2602 was deployed northeast of Flemish Cap. All 5 BTT's functioned well throughout the season. A total downtime of 18 days (7.7% of the season) was experienced on the LUT due largely to its developmental nature. Accuracy of positions was not as good as the 3 km normally attainable because of inadequacy of reference platforms. However, comparison of BTT positions with reported deployment positions and known locations of relatively swift moving currents such as the Labrador Current indicated positions were within  $\pm 10 \text{ km}$ . Exact errors could not be determined.

The purpose of deploying BTT's was to make current measurements to compare with the IIP current file. To do this BTT positions were first input to a computer program utilizing a cubic spline routine to smooth out the drifts. The program calculated a smooth trajectory by ensuring a mathematically continuous first derivative of the BTT displacement versus time plot, thus velocity, and a minimum second derivative, thus acceleration or potential energy. It then output a printout of 6-hourly BTT positions and velocities (Table 2) and a plot of the smooth BTT trajectory (Figures 3-7) representing an approximation of the path the BTT followed. On these plots X's represent input positions, not all of which are marked, and numbers are Julian dates.

To make valid comparisons with the IIP currents, the wind current's contribution must be removed from the BTT drifts. Another program, a modified version of IBERG, used CIIP wind files to calculate wind currents using the same Ekman equation described earlier. The actual comparison of observed drifts and IIP currents was accomplished by a third program (Table 3). It computed 6-hourly observed currents with the wind current subtracted out (BTT w/o W.C.) and then vectorially subtracted the IIP (normal) current from this value. The difference was output in individual and cumulative speed and direction and U (east-west) and V (north-south) components on a printout and plots. The results were then analyzed to determine what if any changes in the current file were warranted. Magnitudes of differences, variability of currents in the respective location, time of season and reliability of measurements were among the items taken into account. No changes to the IIP current file were made during the 1979 season.

## REVIEW AND OUTLOOK

The validity of the concept of using satellite tracked BTT's to measure currents was proven during the 1979 season. Even though the system was in its fledgling stages, it worked well enough to determine if changes to the IIP current file were necessary.

Programs developed to analyze the BTT drifts proved adequate. Much was learned about the capabilities and limitations of the system. Several refinements are planned for the 1980 season but the general overall operational scheme will remain the same. Perhaps most significantly, since the end of the 1979 season a second satellite in the TIROS series, NOAA-6, has been launched and is operational. It will provide additional positions and thereby even more accurate evaluation of IIP currents. Additionally, several reference beacons have been procured for use to ensure maximum accuracy is obtained. Overall, during 1979 the satellite tracked buoy system provided more accurate and much more timely current measurements at a reduced cost as compared to the old survey method. With the system still developing the prospects for the future appear even brighter.

## REFERENCES

- Scobie, R. W. and R. H. Schultz (1976). Oceanography of the Grand Banks Region, March 1971-December 1972. U.S. Coast Guard Oceanographic Report No. 70, Coast Guard 373-70:47.
- Soule, F. M. (1964). The Normal Topography of the Labrador Current and its Environs in the Vicinity of the Grand Banks of Newfoundland during the Iceberg Season. Woods Hole Oceanographic Institution, Ref. No. 64-36.

**Table 1—BTT DATA**

| <i>Buoy ID</i> | <i>Date</i> | <i>Deployment</i> |                  | <i>Positions/Temperatures Supplied</i> |                 |
|----------------|-------------|-------------------|------------------|--|-----------------|
|                |             | <i>Latitude</i>   | <i>Longitude</i> | <i>Total</i>                           | <i>Per Week</i> |
| 2605           | 01 March    | 49-00.6           | 49-57.6          | 87                                     | 4               |
| 2602           | 05 April    | 49-38.0           | 46-42.0          | 68                                     | 4               |
| 2600           | 12 May      | 48-59.4           | 49-54.0          | 52                                     | 5               |
| 2601           | 04 June     | 47-12.0           | 46-18.0          | 35                                     | 5               |
| 2604           | 04 June     | 47-12.0           | 47.06.0          | 34                                     | 5               |

NOTE: Latitude and Longitude are in degrees-minutes.

| DATE (JULIAN) | TIME (HRS-MIN) | LAT (DEG-MIN) | LONG (DEG-MIN) | SPEED (CM/SEC) | DIR (T) |
|---------------|----------------|---------------|----------------|----------------|---------|
| 164.          | 12 0.0         | 46 12.8       | 46 53.6        | 12.29          | 145.8   |
| 164.          | 18 0.0         | 46 11.5       | 46 52.3        | 13.17          | 143.1   |
| 165.          | 0 0.0          | 46 10.3       | 46 51.1        | 11.59          | 148.4   |
| 165.          | 6 0.0          | 46 9.3        | 46 50.4        | 8.29           | 170.1   |
| 165.          | 12 0.0         | 46 8.5        | 46 50.7        | 7.64           | 219.3   |
| 165.          | 18 0.0         | 46 7.9        | 46 51.9        | 10.06          | 242.5   |
| 166.          | 0 0.0          | 46 7.3        | 46 53.6        | 11.49          | 247.2   |
| 166.          | 6 0.0          | 46 6.8        | 46 55.3        | 11.19          | 241.4   |
| 166.          | 12 0.0         | 46 6.1        | 46 56.4        | 10.38          | 228.2   |
| 166.          | 18 0.0         | 46 5.2        | 46 58.1        | 10.90          | 223.0   |
| 167.          | 0 0.0          | 46 4.2        | 46 59.4        | 12.42          | 227.2   |
| 167.          | 6 0.0          | 46 3.2        | 47 1.2         | 15.22          | 236.7   |
| 167.          | 12 0.0         | 46 2.3        | 47 3.8         | 18.99          | 246.0   |
| 167.          | 18 0.0         | 46 1.2        | 47 7.0         | 21.62          | 251.7   |
| 168.          | 0 0.0          | 46 0.7        | 47 10.6        | 22.84          | 256.1   |
| 168.          | 6 0.0          | 46 0.2        | 47 14.3        | 22.61          | 260.3   |
| 168.          | 12 0.0         | 45 59.9       | 47 17.9        | 21.03          | 263.9   |
| 168.          | 18 0.0         | 45 59.6       | 47 21.4        | 18.72          | 260.5   |
| 169.          | 0 0.0          | 45 59.0       | 47 24.1        | 16.50          | 245.5   |
| 169.          | 6 0.0          | 45 57.9       | 47 26.2        | 17.12          | 218.0   |
| 169.          | 12 0.0         | 45 55.8       | 47 27.5        | 22.13          | 192.5   |
| 169.          | 18 0.0         | 45 53.1       | 47 27.6        | 23.94          | 170.4   |
| 170.          | 0 0.0          | 45 50.5       | 47 26.1        | 24.94          | 148.8   |
| 170.          | 6 0.0          | 45 48.1       | 47 23.5        | 25.99          | 137.6   |
| 170.          | 12 0.0         | 45 46.0       | 47 20.4        | 24.72          | 134.3   |
| 170.          | 18 0.0         | 45 44.1       | 47 17.8        | 20.54          | 139.1   |
| 171.          | 0 0.0          | 45 42.4       | 47 16.2        | 14.79          | 161.1   |
| 171.          | 6 0.0          | 45 40.8       | 47 16.4        | 15.14          | 213.2   |
| 171.          | 12 0.0         | 45 39.4       | 47 19.1        | 26.76          | 244.5   |
| 171.          | 18 0.0         | 45 38.1       | 47 24.2        | 37.14          | 253.5   |
| 172.          | 0 0.0          | 45 36.9       | 47 30.7        | 43.03          | 256.8   |
| 172.          | 6 0.0          | 45 35.8       | 47 37.8        | 43.92          | 257.8   |
| 172.          | 12 0.0         | 45 34.8       | 47 44.7        | 40.76          | 257.2   |
| 172.          | 18 0.0         | 45 33.7       | 47 51.0        | 37.64          | 255.4   |
| 173.          | 0 0.0          | 45 32.5       | 47 56.8        | 35.04          | 252.2   |
| 173.          | 6 0.0          | 45 31.2       | 48 2.1         | 33.10          | 247.3   |
| 173.          | 12 0.0         | 45 29.5       | 48 6.9         | 31.88          | 241.2   |
| 173.          | 18 0.0         | 45 27.6       | 48 11.3        | 30.96          | 235.2   |
| 174.          | 0 0.0          | 45 25.4       | 48 15.3        | 30.22          | 229.5   |
| 174.          | 6 0.0          | 45 23.0       | 48 18.8        | 29.40          | 224.0   |

Table 2.—Example of BTT (02604) Position, Speed and Direction output.

|                |       |      |             |             |       |              |            |                |          |          |       |        |
|----------------|-------|------|-------------|-------------|-------|--------------|------------|----------------|----------|----------|-------|--------|
| DAY            | TIME  | DIST | CUM<br>DIST | SPEED       | DIR   | CUM<br>SPEED | CUM<br>DIR | 2604 BTI DRIFT | CUM<br>U | CUM<br>V |       |        |
| 164            | 1200  |      |             | 12.29       | 145.8 | 12.29        | 145.8      |                | 6.91     | -10.16   |       |        |
| NORMAL DRIFT   |       |      |             |             |       |              |            |                |          |          |       |        |
| SPEED          | DIR   | U    | V           | 11.48       | 146.7 | 11.48        | 146.7      | 6.31           | -9.59    | -9.59    |       |        |
| 5.16           | 157.2 | 2.00 | -4.75       | DIFFERENCES |       |              |            |                |          |          | 6.31  | -9.59  |
| BTI W/O W.C.   |       |      |             |             |       |              |            |                |          |          |       |        |
|                |       |      |             | 6.48        | 138.3 | 6.48         | 138.3      | 4.31           | -4.84    | -4.84    |       |        |
| 2604 BTI DRIFT |       |      |             |             |       |              |            |                |          |          |       |        |
| DAY            | TIME  | DIST | CUM<br>DIST | SPEED       | DIR   | CUM<br>SPEED | CUM<br>DIR |                | CUM<br>U | CUM<br>V |       |        |
| 164            | 1800  | 1.58 | 1.58        | 13.17       | 143.1 | 25.45        | 144.4      | 7.91           | -10.53   | -20.69   |       |        |
| NORMAL DRIFT   |       |      |             |             |       |              |            |                |          |          |       |        |
| SPEED          | DIR   | U    | V           | 12.35       | 143.7 | 23.83        | 290.4      | 7.30           | -9.96    | -19.55   |       |        |
| 4.33           | 142.4 | 2.64 | -3.44       | DIFFERENCES |       |              |            |                |          |          | 13.61 | -19.55 |
| BTI W/O W.C.   |       |      |             |             |       |              |            |                |          |          |       |        |
|                |       |      |             | 9.02        | 144.4 | 14.49        | 282.8      | 4.66           | -6.52    | -11.36   |       |        |
| 2604 BTI DRIFT |       |      |             |             |       |              |            |                |          |          |       |        |
| DAY            | TIME  | DIST | CUM<br>DIST | SPEED       | DIR   | CUM<br>SPEED | CUM<br>DIR |                | CUM<br>U | CUM<br>V |       |        |
| 165            | 000   | 1.46 | 3.04        | 11.59       | 148.4 | 37.02        | 145.6      | 6.08           | -9.87    | -30.56   |       |        |
| NORMAL DRIFT   |       |      |             |             |       |              |            |                |          |          |       |        |
| SPEED          | DIR   | U    | V           | 9.22        | 167.4 | 33.04        | 97.8       | 2.00           | -9.00    | -28.54   |       |        |
| 4.00           | 126.5 | 3.22 | -2.38       | DIFFERENCES |       |              |            |                |          |          | 15.62 | -28.54 |
| BTI W/O W.C.   |       |      |             |             |       |              |            |                |          |          |       |        |
|                |       |      |             | 6.73        | 190.4 | 21.22        | 113.2      | -1.22          | -6.62    | -17.98   |       |        |

Table 3.—Comparison with IIP Current File (BTT 02604).

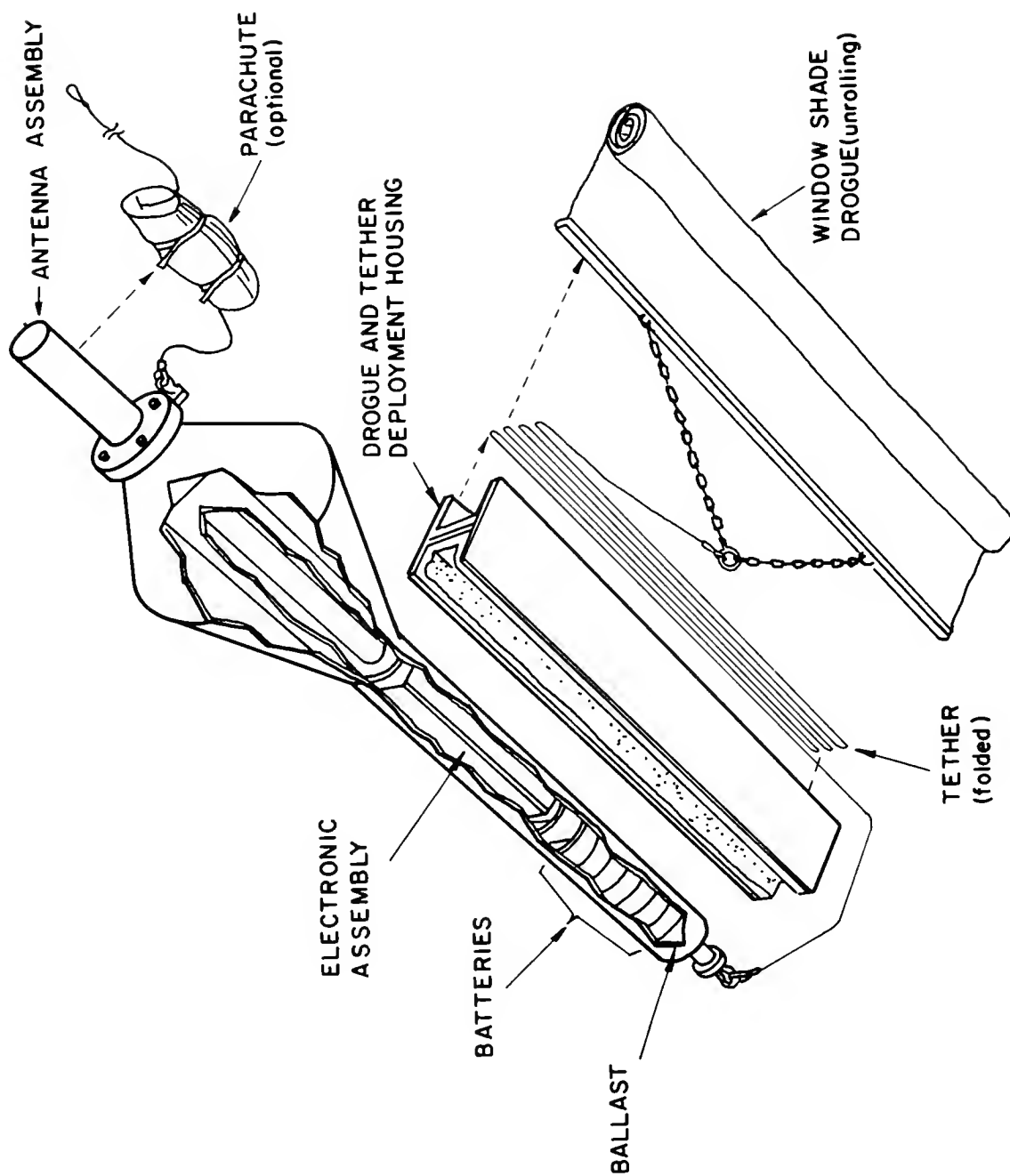


Figure 1.—BTT in TIROS Oceanographic Drifter configuration.

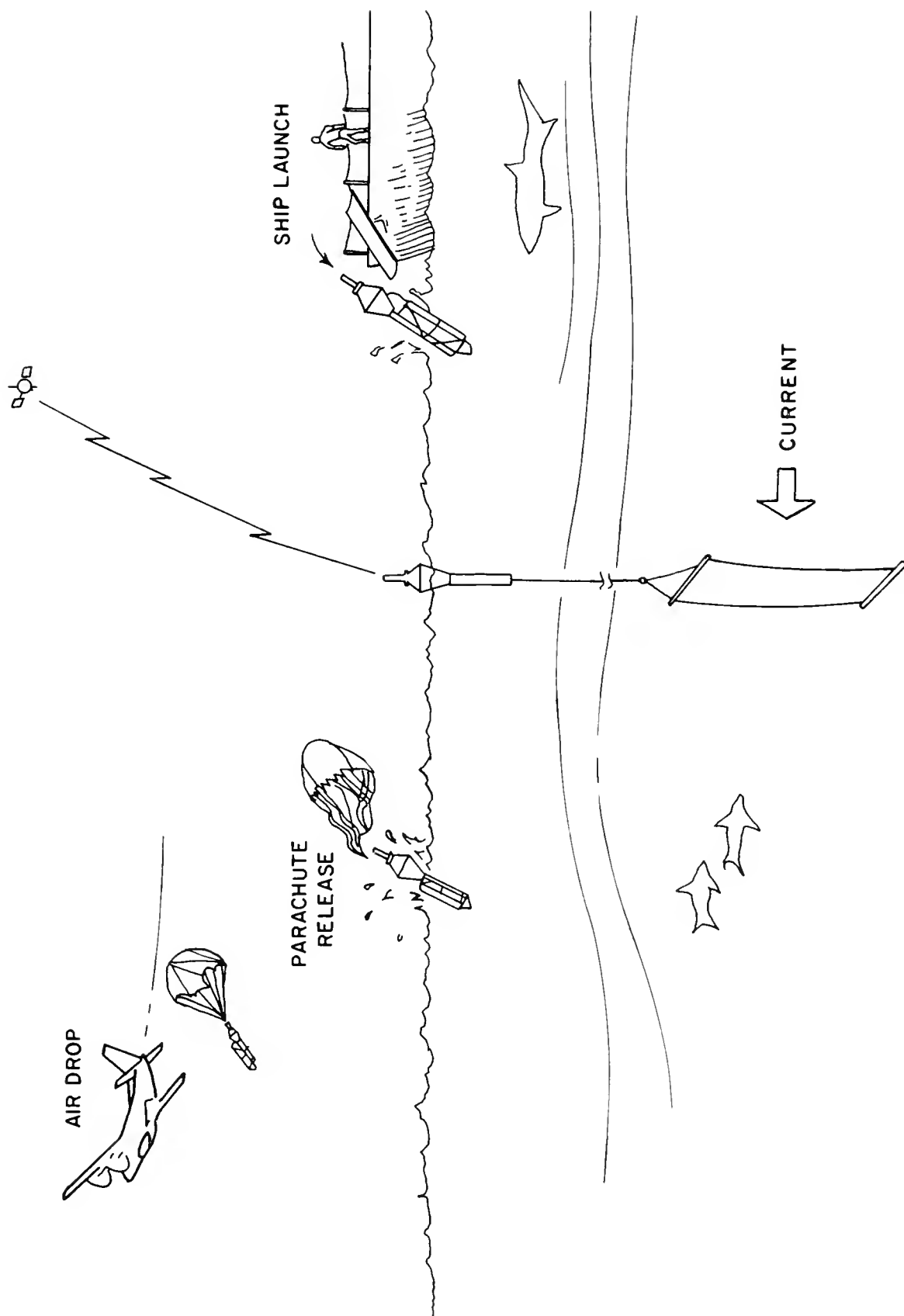


Figure 2.—BTT Deployment

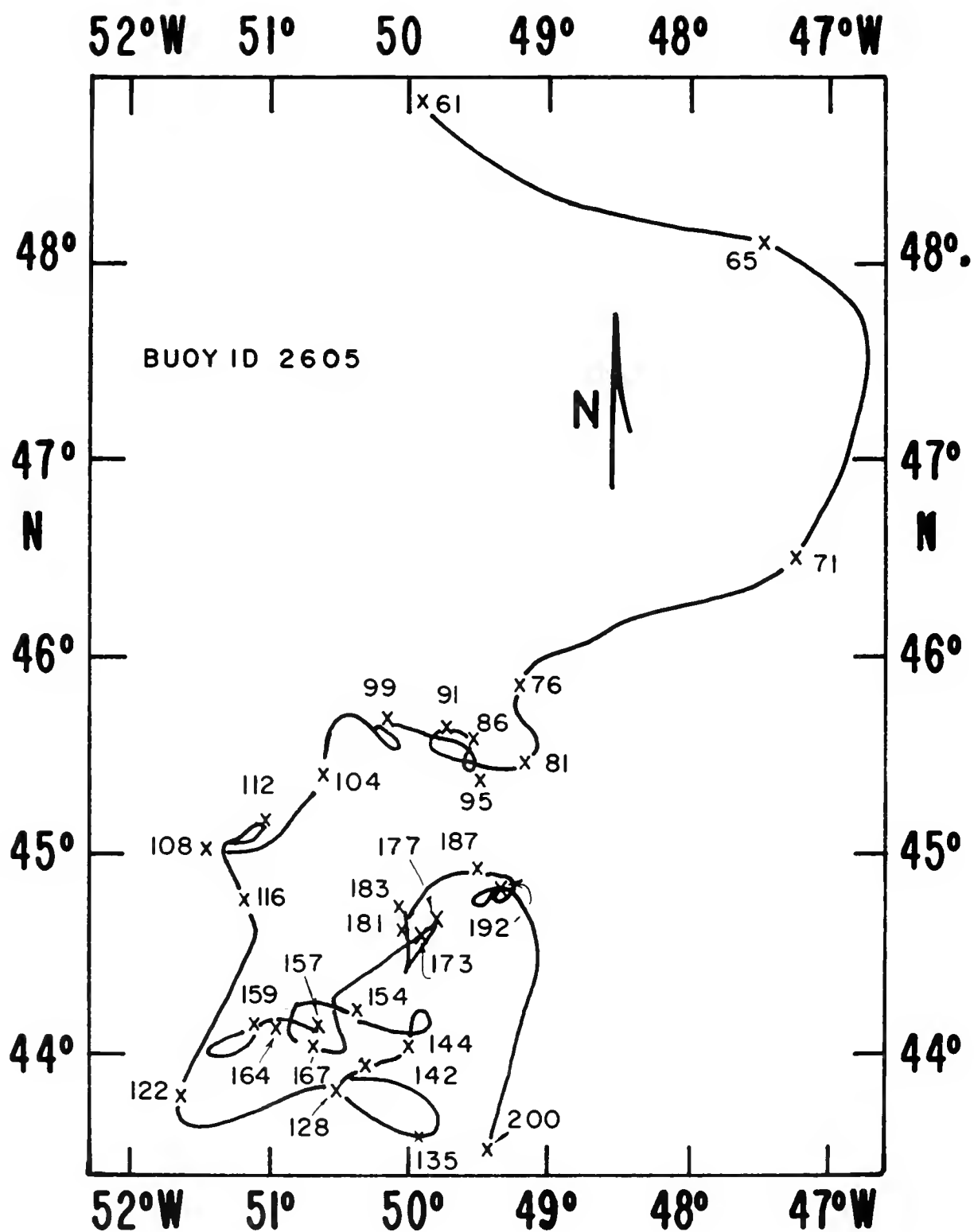


Figure 3.—Drift of BTT 02605.



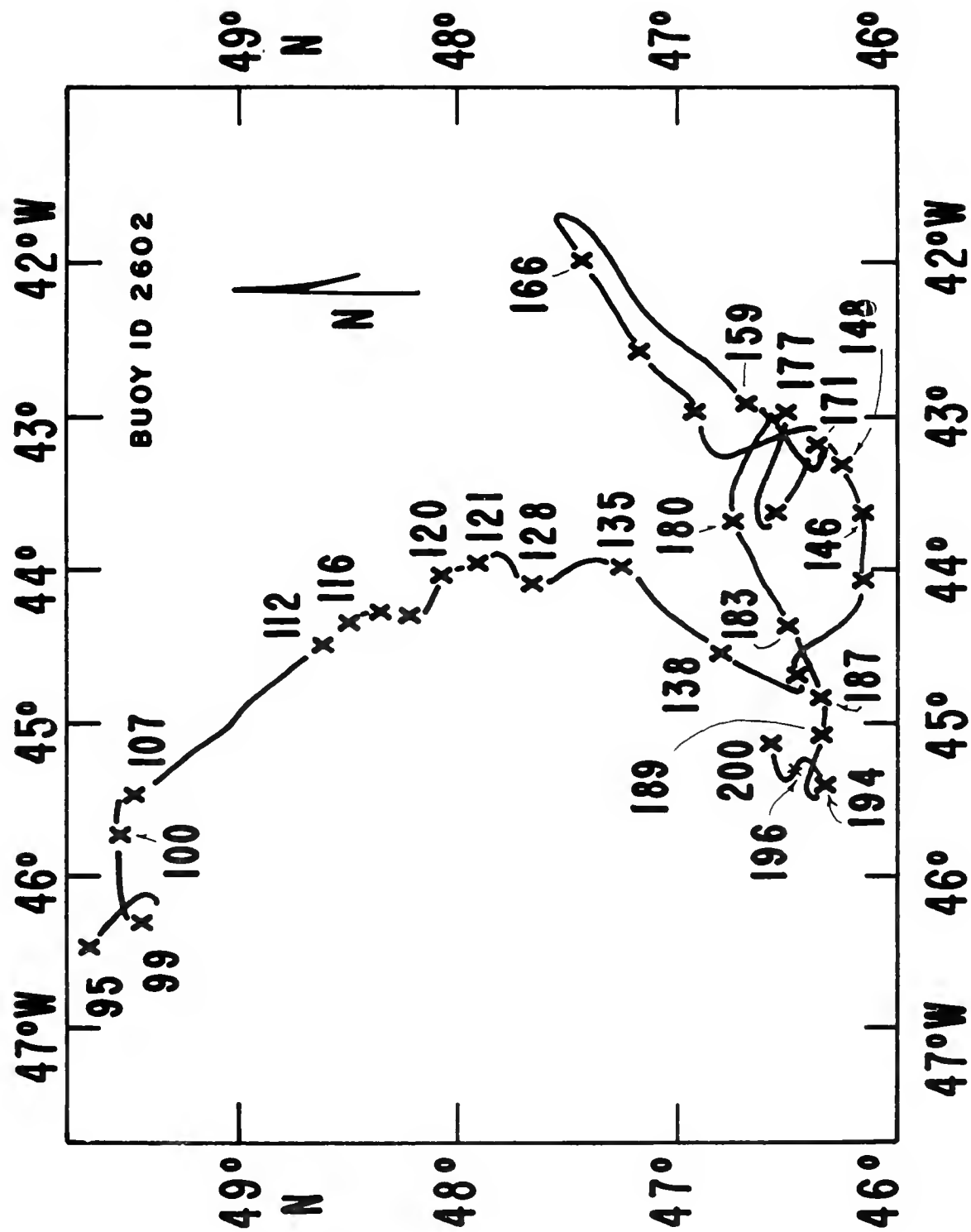


Figure 4.—Drift of BT 02602.

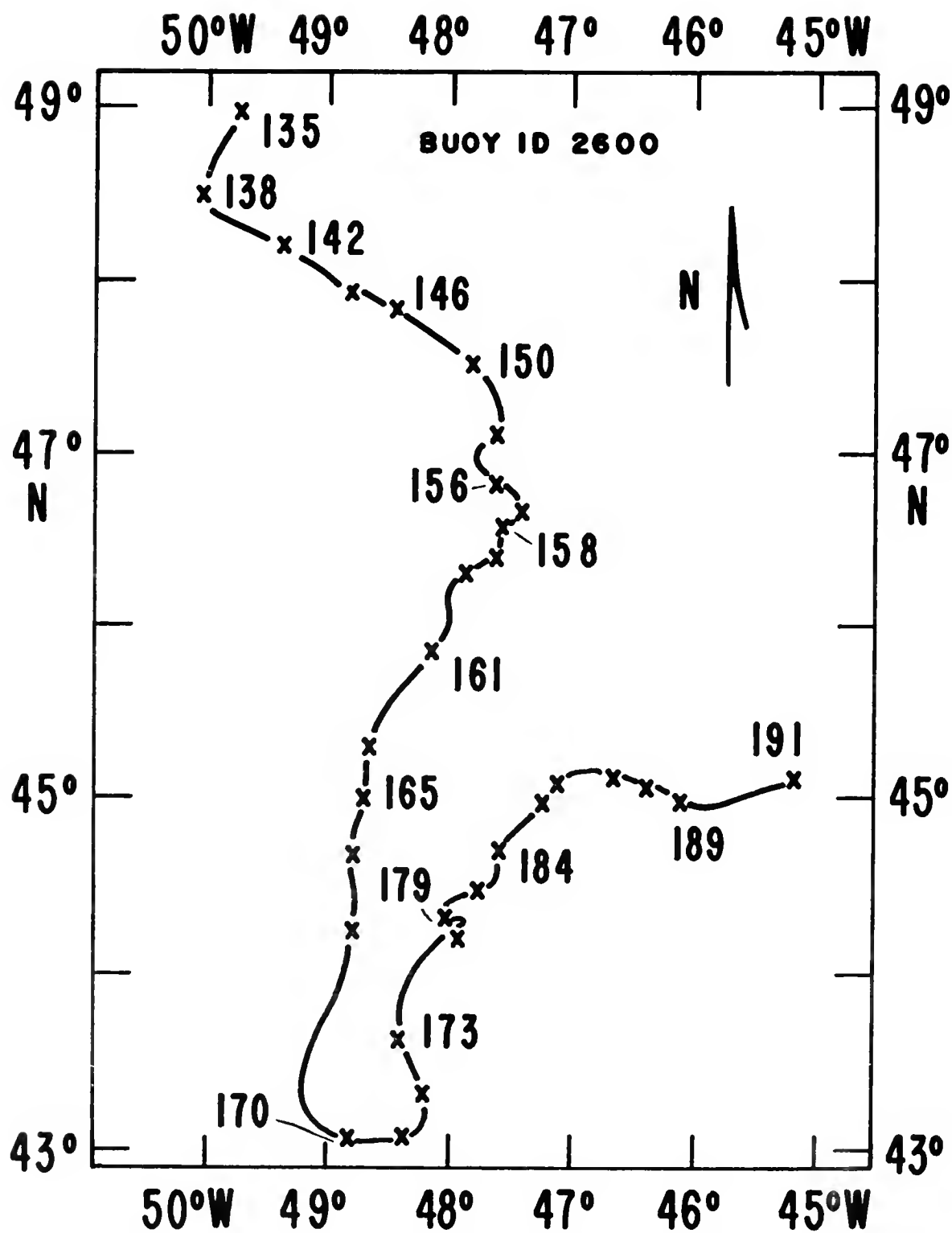


Figure 5.—Drift of BTT 02600.

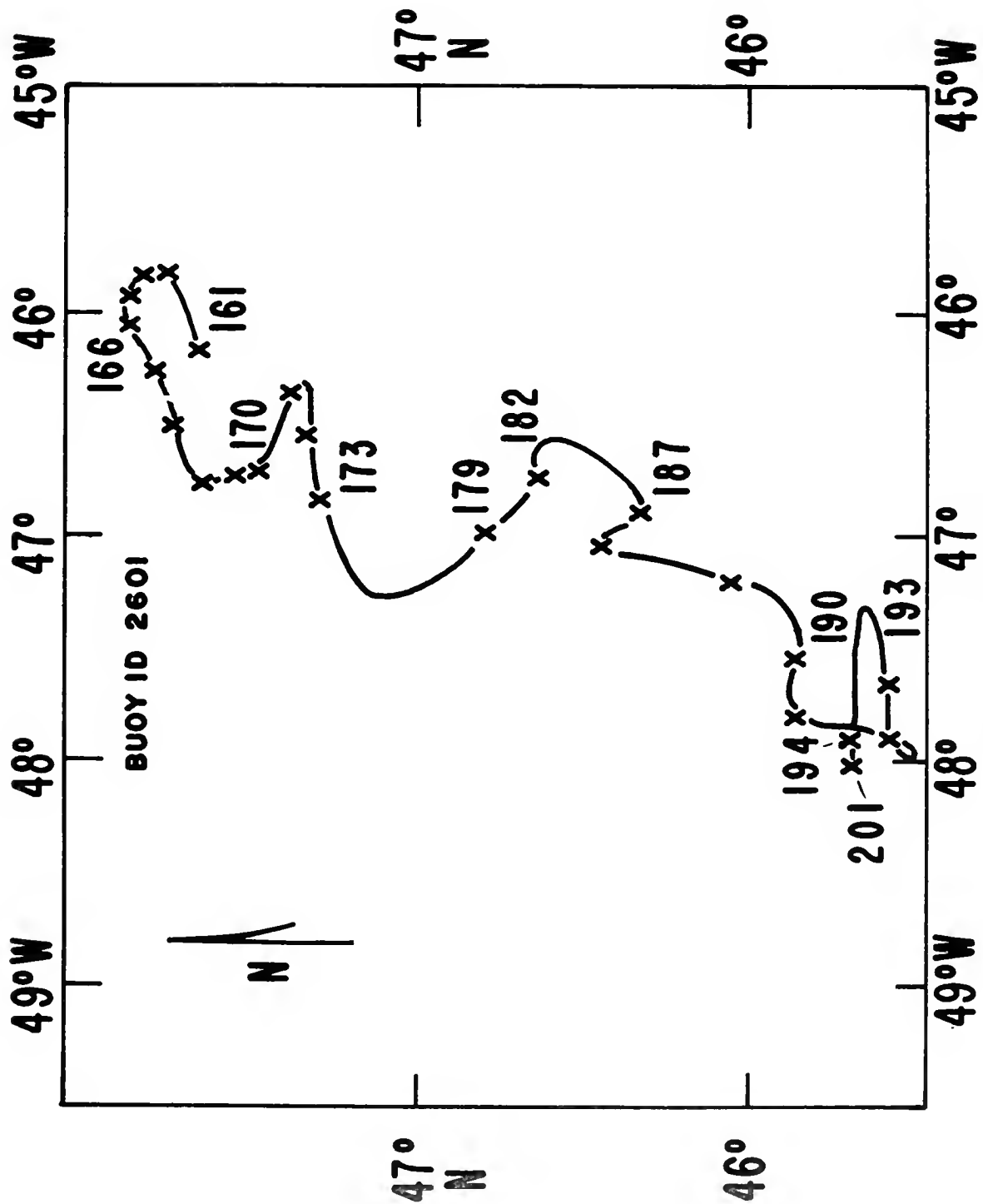


Figure 6.—Drift of BTT 02601.

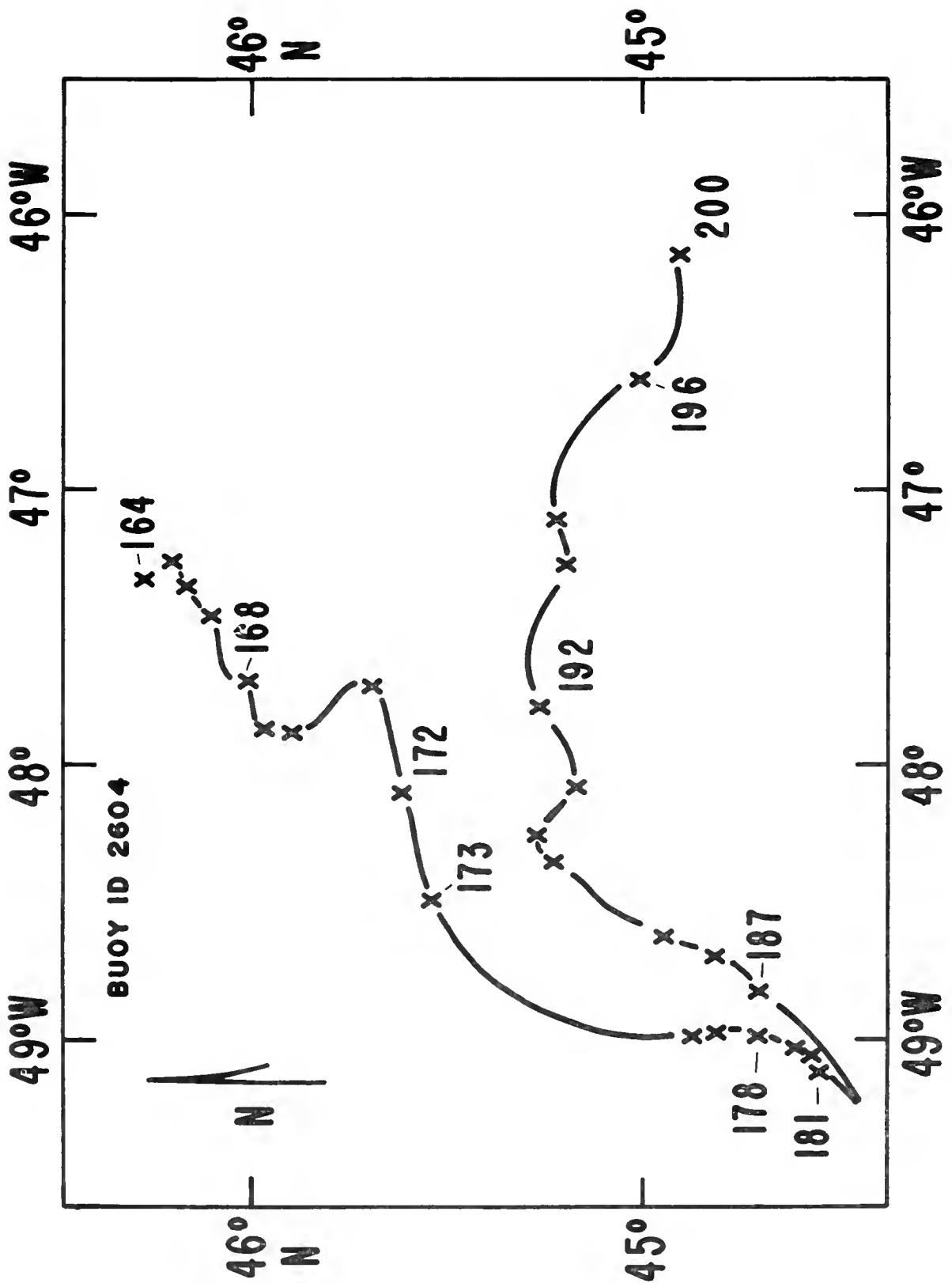


Figure 7.—Drift of BTT 02604.

# APPENDIX A IIP CURRENTS

| LAT   | LONG  | DIR | SPD | 52.00 | 41.20 | 119 | 18 |
|-------|-------|-----|-----|-------|-------|-----|----|
|       |       |     |     | 52.00 | 41.00 | 116 | 15 |
| LAT   | LONG  | DIR | SPD | 52.00 | 40.40 | 116 | 15 |
|       |       |     |     | 52.00 | 40.20 | 116 | 15 |
| LAT   | LONG  | DIR | SPD | 52.00 | 40.00 | 116 | 15 |
|       |       |     |     | 52.00 | 39.40 | 116 | 15 |
| LAT   | LONG  | DIR | SPD | 52.00 | 39.20 | 116 | 15 |
|       |       |     |     | 52.00 | 39.00 | 116 | 15 |
| 52.00 | 56.40 | 0   | 0   | 51.40 | 57.00 | 0   | 0  |
| 52.00 | 56.20 | 0   | 0   | 51.40 | 56.40 | 0   | 0  |
| 52.00 | 56.00 | 0   | 0   | 51.40 | 56.20 | 0   | 0  |
| 52.00 | 55.40 | 0   | 0   | 51.40 | 56.00 | 0   | 0  |
| 52.00 | 55.20 | 0   | 0   | 51.40 | 55.40 | 0   | 0  |
| 52.00 | 55.00 | 160 | 23  | 51.40 | 55.20 | 0   | 0  |
| 52.00 | 54.40 | 160 | 23  | 51.40 | 55.00 | 160 | 23 |
| 52.00 | 54.20 | 160 | 23  | 51.40 | 54.40 | 160 | 23 |
| 52.00 | 54.00 | 160 | 23  | 51.40 | 54.20 | 160 | 23 |
| 52.00 | 53.40 | 160 | 23  | 51.40 | 54.00 | 160 | 23 |
| 52.00 | 53.20 | 160 | 23  | 51.40 | 53.40 | 160 | 23 |
| 52.00 | 53.00 | 160 | 23  | 51.40 | 53.20 | 160 | 23 |
| 52.00 | 52.40 | 160 | 23  | 51.40 | 53.00 | 160 | 23 |
| 52.00 | 52.20 | 160 | 23  | 51.40 | 52.40 | 160 | 23 |
| 52.00 | 52.00 | 160 | 23  | 51.40 | 52.20 | 160 | 23 |
| 52.00 | 51.40 | 160 | 23  | 51.40 | 52.00 | 160 | 23 |
| 52.00 | 51.20 | 160 | 23  | 51.40 | 51.40 | 160 | 23 |
| 52.00 | 51.00 | 160 | 69  | 51.40 | 51.20 | 160 | 23 |
| 52.00 | 50.40 | 168 | 64  | 51.40 | 51.00 | 169 | 74 |
| 52.00 | 50.20 | 169 | 37  | 51.40 | 50.40 | 160 | 69 |
| 52.00 | 50.00 | 169 | 37  | 51.40 | 50.20 | 170 | 42 |
| 52.00 | 49.50 | 169 | 37  | 51.40 | 50.00 | 170 | 42 |
| 52.00 | 49.40 | 169 | 37  | 51.40 | 49.50 | 170 | 42 |
| 52.00 | 49.30 | 169 | 37  | 51.40 | 49.40 | 170 | 42 |
| 52.00 | 49.20 | 169 | 37  | 51.40 | 49.30 | 170 | 42 |
| 52.00 | 49.10 | 169 | 37  | 51.40 | 49.20 | 170 | 42 |
| 52.00 | 49.00 | 169 | 37  | 51.40 | 49.10 | 170 | 42 |
| 52.00 | 48.50 | 169 | 37  | 51.40 | 49.00 | 170 | 42 |
| 52.00 | 48.40 | 168 | 35  | 51.40 | 48.50 | 170 | 42 |
| 52.00 | 48.30 | 172 | 35  | 51.40 | 48.40 | 169 | 40 |
| 52.00 | 48.20 | 180 | 34  | 51.40 | 48.30 | 173 | 39 |
| 52.00 | 48.10 | 180 | 34  | 51.40 | 48.20 | 180 | 39 |
| 52.00 | 48.00 | 180 | 34  | 51.40 | 48.10 | 180 | 41 |
| 52.00 | 47.50 | 180 | 34  | 51.40 | 48.00 | 180 | 41 |
| 52.00 | 47.40 | 180 | 34  | 51.40 | 47.50 | 180 | 41 |
| 52.00 | 47.30 | 180 | 34  | 51.40 | 47.40 | 180 | 39 |
| 52.00 | 47.20 | 180 | 34  | 51.40 | 47.30 | 180 | 39 |
| 52.00 | 47.10 | 180 | 34  | 51.40 | 47.20 | 180 | 37 |
| 52.00 | 47.00 | 180 | 34  | 51.40 | 47.10 | 180 | 37 |
| 52.00 | 46.50 | 172 | 35  | 51.40 | 47.00 | 180 | 37 |
| 52.00 | 46.40 | 168 | 35  | 51.40 | 46.50 | 172 | 37 |
| 52.00 | 46.30 | 168 | 35  | 51.40 | 46.40 | 169 | 37 |
| 52.00 | 46.20 | 168 | 35  | 51.40 | 46.30 | 169 | 37 |
| 52.00 | 46.10 | 165 | 36  | 51.40 | 46.20 | 169 | 37 |
| 52.00 | 46.00 | 161 | 36  | 51.40 | 46.10 | 165 | 38 |
| 52.00 | 45.40 | 161 | 36  | 51.40 | 46.00 | 161 | 36 |
| 52.00 | 45.20 | 148 | 35  | 51.40 | 45.40 | 150 | 37 |
| 52.00 | 45.00 | 140 | 36  | 51.40 | 45.20 | 140 | 36 |
| 52.00 | 44.40 | 140 | 36  | 51.40 | 45.00 | 129 | 36 |
| 52.00 | 44.20 | 140 | 36  | 51.40 | 44.40 | 129 | 36 |
| 52.00 | 44.00 | 129 | 36  | 51.40 | 44.20 | 129 | 36 |
| 52.00 | 43.40 | 129 | 36  | 51.40 | 44.00 | 129 | 36 |
| 52.00 | 43.20 | 129 | 36  | 51.40 | 43.40 | 119 | 37 |
| 52.00 | 43.00 | 129 | 36  | 51.40 | 43.20 | 119 | 37 |
| 52.00 | 42.40 | 128 | 29  | 51.40 | 43.00 | 121 | 35 |
| 52.00 | 42.20 | 118 | 29  | 51.40 | 42.40 | 118 | 29 |
| 52.00 | 42.00 | 118 | 29  | 51.40 | 42.20 | 118 | 29 |
| 52.00 | 41.40 | 119 | 18  | 51.40 | 42.00 | 119 | 18 |

NOTE: LAT LONG ARE IN DEGREES.MINUTES.

| LAT   | LONG  | DIR | SPD |       |       |     |    |
|-------|-------|-----|-----|-------|-------|-----|----|
| 51.40 | 41.40 | 119 | 18  | 51.20 | 42.00 | 97  | 18 |
| 51.40 | 41.20 | 116 | 15  | 51.20 | 41.40 | 97  | 18 |
| 51.40 | 41.00 | 108 | 14  | 51.20 | 41.20 | 99  | 14 |
| 51.40 | 40.40 | 108 | 14  | 51.20 | 41.00 | 99  | 14 |
| 51.40 | 40.20 | 108 | 14  | 51.20 | 40.40 | 99  | 14 |
| 51.40 | 40.00 | 108 | 14  | 51.20 | 40.20 | 99  | 14 |
| 51.40 | 39.40 | 108 | 14  | 51.20 | 40.00 | 99  | 14 |
| 51.40 | 39.20 | 108 | 14  | 51.20 | 39.40 | 99  | 14 |
| 51.40 | 39.00 | 108 | 14  | 51.20 | 39.20 | 99  | 14 |
| 51.20 | 57.00 | 0   | 0   | 51.20 | 39.00 | 99  | 14 |
| 51.20 | 56.40 | 0   | 0   | 51.00 | 57.00 | 0   | 0  |
| 51.20 | 56.20 | 0   | 0   | 51.00 | 56.40 | 0   | 0  |
| 51.20 | 56.00 | 0   | 0   | 51.00 | 56.20 | 0   | 0  |
| 51.20 | 55.40 | 0   | 0   | 51.00 | 56.00 | 0   | 0  |
| 51.20 | 55.20 | 160 | 23  | 51.00 | 55.40 | 0   | 0  |
| 51.20 | 55.00 | 160 | 23  | 51.00 | 55.20 | 160 | 23 |
| 51.20 | 54.40 | 160 | 23  | 51.00 | 55.00 | 160 | 23 |
| 51.20 | 54.20 | 160 | 23  | 51.00 | 54.40 | 160 | 23 |
| 51.20 | 54.00 | 160 | 23  | 51.00 | 54.20 | 160 | 23 |
| 51.20 | 53.40 | 160 | 23  | 51.00 | 54.00 | 160 | 23 |
| 51.20 | 53.20 | 160 | 23  | 51.00 | 53.40 | 160 | 23 |
| 51.20 | 53.00 | 160 | 23  | 51.00 | 53.20 | 160 | 23 |
| 51.20 | 52.40 | 160 | 23  | 51.00 | 53.00 | 160 | 23 |
| 51.20 | 52.20 | 160 | 23  | 51.00 | 52.40 | 160 | 23 |
| 51.20 | 52.00 | 160 | 23  | 51.00 | 52.20 | 160 | 23 |
| 51.20 | 51.40 | 160 | 23  | 51.00 | 52.00 | 160 | 23 |
| 51.20 | 51.20 | 160 | 23  | 51.00 | 51.40 | 160 | 23 |
| 51.20 | 51.00 | 160 | 76  | 51.00 | 51.20 | 160 | 23 |
| 51.20 | 50.40 | 169 | 74  | 51.00 | 51.00 | 149 | 78 |
| 51.20 | 50.20 | 170 | 42  | 51.00 | 50.40 | 160 | 76 |
| 51.20 | 50.00 | 170 | 42  | 51.00 | 50.20 | 171 | 44 |
| 51.20 | 49.50 | 170 | 42  | 51.00 | 50.00 | 171 | 44 |
| 51.20 | 49.40 | 170 | 42  | 51.00 | 49.50 | 171 | 44 |
| 51.20 | 49.30 | 170 | 42  | 51.00 | 49.40 | 171 | 44 |
| 51.20 | 49.20 | 170 | 42  | 51.00 | 49.30 | 171 | 44 |
| 51.20 | 49.10 | 170 | 42  | 51.00 | 49.20 | 171 | 44 |
| 51.20 | 49.00 | 170 | 42  | 51.00 | 49.10 | 171 | 44 |
| 51.20 | 48.50 | 170 | 42  | 51.00 | 49.00 | 171 | 44 |
| 51.20 | 48.40 | 169 | 40  | 51.00 | 48.50 | 171 | 44 |
| 51.20 | 48.30 | 173 | 39  | 51.00 | 48.40 | 171 | 44 |
| 51.20 | 48.20 | 130 | 39  | 51.00 | 48.30 | 171 | 44 |
| 51.20 | 48.10 | 180 | 41  | 51.00 | 48.20 | 171 | 44 |
| 51.20 | 48.00 | 180 | 41  | 51.00 | 48.10 | 173 | 44 |
| 51.20 | 47.50 | 180 | 41  | 51.00 | 48.00 | 180 | 41 |
| 51.20 | 47.40 | 180 | 39  | 51.00 | 47.50 | 180 | 39 |
| 51.20 | 47.30 | 180 | 39  | 51.00 | 47.40 | 180 | 37 |
| 51.20 | 47.20 | 180 | 37  | 51.00 | 47.30 | 180 | 37 |
| 51.20 | 47.10 | 180 | 37  | 51.00 | 47.20 | 180 | 34 |
| 51.20 | 47.00 | 180 | 37  | 51.00 | 47.10 | 180 | 34 |
| 51.20 | 46.50 | 172 | 37  | 51.00 | 47.00 | 140 | 34 |
| 51.20 | 46.40 | 169 | 37  | 51.00 | 46.50 | 172 | 35 |
| 51.20 | 46.30 | 165 | 38  | 51.00 | 46.40 | 168 | 35 |
| 51.20 | 46.20 | 161 | 36  | 51.00 | 46.30 | 165 | 36 |
| 51.20 | 46.10 | 154 | 38  | 51.00 | 46.20 | 160 | 34 |
| 51.20 | 46.00 | 150 | 37  | 51.00 | 46.10 | 153 | 36 |
| 51.20 | 45.40 | 140 | 36  | 51.00 | 46.00 | 148 | 35 |
| 51.20 | 45.20 | 129 | 36  | 51.00 | 45.40 | 148 | 35 |
| 51.20 | 45.00 | 119 | 37  | 51.00 | 45.20 | 137 | 34 |
| 51.20 | 44.40 | 119 | 37  | 51.00 | 45.00 | 137 | 34 |
| 51.20 | 44.20 | 119 | 37  | 51.00 | 44.40 | 129 | 36 |
| 51.20 | 44.00 | 119 | 37  | 51.00 | 44.20 | 121 | 35 |
| 51.20 | 43.40 | 100 | 37  | 51.00 | 44.00 | 109 | 34 |
| 51.20 | 43.20 | 100 | 37  | 51.00 | 43.40 | 109 | 34 |
| 51.20 | 43.00 | 100 | 37  | 51.00 | 43.20 | 101 | 35 |
| 51.20 | 42.40 | 98  | 30  | 51.00 | 43.00 | 98  | 30 |
| 51.20 | 42.20 | 98  | 30  | 51.00 | 42.40 | 97  | 18 |

| LAT   | LONG  | DIR | SPD |       |       |     |    |
|-------|-------|-----|-----|-------|-------|-----|----|
| 51.00 | 42.20 | 97  | 18  | 50.40 | 42.40 | 97  | 18 |
| 51.00 | 42.00 | 97  | 18  | 50.40 | 42.20 | 97  | 18 |
| 51.00 | 41.40 | 99  | 14  | 50.40 | 42.00 | 90  | 20 |
| 51.00 | 41.20 | 99  | 14  | 50.40 | 41.40 | 90  | 13 |
| 51.00 | 41.00 | 99  | 14  | 50.40 | 41.20 | 90  | 13 |
| 51.00 | 40.40 | 99  | 14  | 50.40 | 41.00 | 90  | 13 |
| 51.00 | 40.20 | 99  | 14  | 50.40 | 40.40 | 90  | 13 |
| 51.00 | 40.00 | 99  | 14  | 50.40 | 40.20 | 90  | 13 |
| 51.00 | 39.40 | 99  | 14  | 50.40 | 40.00 | 90  | 13 |
| 51.00 | 39.20 | 99  | 14  | 50.40 | 39.40 | 90  | 13 |
| 51.00 | 39.00 | 99  | 14  | 50.40 | 39.20 | 90  | 13 |
| 50.40 | 57.00 | 0   | 0   | 50.40 | 39.00 | 90  | 13 |
| 50.40 | 56.40 | 0   | 0   | 50.20 | 57.00 | 0   | 0  |
| 50.40 | 56.20 | 0   | 0   | 50.20 | 56.40 | 0   | 0  |
| 50.40 | 56.00 | 0   | 0   | 50.20 | 56.20 | 0   | 0  |
| 50.40 | 55.40 | 160 | 23  | 50.20 | 56.00 | 0   | 0  |
| 50.40 | 55.20 | 160 | 23  | 50.20 | 55.40 | 160 | 23 |
| 50.40 | 55.00 | 160 | 23  | 50.20 | 55.20 | 160 | 23 |
| 50.40 | 54.40 | 160 | 23  | 50.20 | 55.00 | 160 | 23 |
| 50.40 | 54.20 | 160 | 23  | 50.20 | 54.40 | 160 | 23 |
| 50.40 | 54.00 | 160 | 23  | 50.20 | 54.20 | 160 | 23 |
| 50.40 | 53.40 | 160 | 23  | 50.20 | 54.00 | 160 | 23 |
| 50.40 | 53.20 | 160 | 23  | 50.20 | 53.40 | 160 | 23 |
| 50.40 | 53.00 | 160 | 23  | 50.20 | 53.20 | 160 | 23 |
| 50.40 | 52.40 | 160 | 23  | 50.20 | 53.00 | 160 | 23 |
| 50.40 | 52.20 | 160 | 23  | 50.20 | 52.40 | 160 | 23 |
| 50.40 | 52.00 | 160 | 23  | 50.20 | 52.20 | 160 | 23 |
| 50.40 | 51.40 | 160 | 23  | 50.20 | 52.00 | 160 | 23 |
| 50.40 | 51.20 | 160 | 23  | 50.20 | 51.40 | 160 | 23 |
| 50.40 | 51.00 | 160 | 23  | 50.20 | 51.20 | 160 | 23 |
| 50.40 | 50.40 | 149 | 74  | 50.20 | 51.00 | 160 | 23 |
| 50.40 | 50.20 | 160 | 76  | 50.20 | 50.40 | 150 | 80 |
| 50.40 | 50.00 | 135 | 32  | 50.20 | 50.20 | 150 | 50 |
| 50.40 | 49.50 | 135 | 32  | 50.20 | 50.00 | 135 | 32 |
| 50.40 | 49.40 | 135 | 32  | 50.20 | 49.50 | 135 | 32 |
| 50.40 | 49.30 | 135 | 32  | 50.20 | 49.40 | 135 | 32 |
| 50.40 | 49.20 | 135 | 32  | 50.20 | 49.30 | 135 | 32 |
| 50.40 | 49.10 | 135 | 32  | 50.20 | 49.20 | 135 | 32 |
| 50.40 | 49.00 | 135 | 32  | 50.20 | 49.10 | 135 | 32 |
| 50.40 | 48.50 | 135 | 32  | 50.20 | 49.00 | 116 | 26 |
| 50.40 | 48.40 | 135 | 32  | 50.20 | 48.50 | 90  | 18 |
| 50.40 | 48.30 | 135 | 32  | 50.20 | 48.40 | 90  | 11 |
| 50.40 | 48.20 | 135 | 32  | 50.20 | 48.30 | 90  | 11 |
| 50.40 | 48.10 | 135 | 32  | 50.20 | 48.20 | 90  | 11 |
| 50.40 | 48.00 | 135 | 32  | 50.20 | 48.10 | 90  | 11 |
| 50.40 | 47.50 | 135 | 32  | 50.20 | 48.00 | 90  | 11 |
| 50.40 | 47.40 | 135 | 32  | 50.20 | 47.50 | 90  | 11 |
| 50.40 | 47.30 | 135 | 32  | 50.20 | 47.40 | 90  | 11 |
| 50.40 | 47.20 | 135 | 32  | 50.20 | 47.30 | 90  | 11 |
| 50.40 | 47.10 | 135 | 32  | 50.20 | 47.20 | 90  | 11 |
| 50.40 | 47.00 | 135 | 32  | 50.20 | 47.10 | 90  | 11 |
| 50.40 | 46.50 | 135 | 32  | 50.20 | 47.00 | 90  | 11 |
| 50.40 | 46.40 | 135 | 32  | 50.20 | 46.50 | 90  | 11 |
| 50.40 | 46.30 | 135 | 32  | 50.20 | 46.40 | 90  | 11 |
| 50.40 | 46.20 | 135 | 32  | 50.20 | 46.30 | 90  | 14 |
| 50.40 | 46.10 | 135 | 32  | 50.20 | 46.20 | 90  | 23 |
| 50.40 | 46.00 | 140 | 33  | 50.20 | 46.10 | 90  | 27 |
| 50.40 | 45.40 | 129 | 33  | 50.20 | 46.00 | 90  | 30 |
| 50.40 | 45.20 | 129 | 33  | 50.20 | 45.40 | 131 | 31 |
| 50.40 | 45.00 | 120 | 32  | 50.20 | 45.20 | 120 | 32 |
| 50.40 | 44.40 | 120 | 32  | 50.20 | 45.00 | 112 | 30 |
| 50.40 | 44.20 | 111 | 32  | 50.20 | 44.40 | 112 | 30 |
| 50.40 | 44.00 | 111 | 32  | 50.20 | 44.20 | 112 | 30 |
| 50.40 | 43.40 | 108 | 29  | 50.20 | 44.00 | 112 | 30 |
| 50.40 | 43.20 | 98  | 30  | 50.20 | 43.40 | 98  | 30 |
| 50.40 | 43.00 | 98  | 30  | 50.20 | 43.20 | 98  | 30 |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 50.20 | 43.00 | 98  | 30   | 50.00 | 43.20 | 90  | 32   |
| 50.20 | 42.40 | 90  | 20   | 50.00 | 43.00 | 90  | 27   |
| 50.20 | 42.20 | 90  | 20   | 50.00 | 42.40 | 90  | 20   |
| 50.20 | 42.00 | 90  | 20   | 50.00 | 42.20 | 90  | 20   |
| 50.20 | 41.40 | 90  | 13   | 50.00 | 42.00 | 90  | 20   |
| 50.20 | 41.20 | 90  | 13   | 50.00 | 41.40 | 90  | 20   |
| 50.20 | 41.00 | 90  | 13   | 50.00 | 41.20 | 90  | 20   |
| 50.20 | 40.40 | 90  | 13   | 50.00 | 41.00 | 90  | 20   |
| 50.20 | 40.20 | 90  | 13   | 50.00 | 40.40 | 90  | 20   |
| 50.20 | 40.00 | 90  | 13   | 50.00 | 40.20 | 90  | 20   |
| 50.20 | 39.40 | 90  | 13   | 50.00 | 40.00 | 82  | 18   |
| 50.20 | 39.20 | 90  | 20   | 50.00 | 39.40 | 78  | 23   |
| 50.20 | 39.00 | 90  | 20   | 50.00 | 39.20 | 78  | 23   |
| 50.00 | 57.00 | 0   | 0    | 50.00 | 39.00 | 78  | 23   |
| 50.00 | 56.40 | 0   | 0    | 49.40 | 57.00 | 0   | 0    |
| 50.00 | 56.20 | 0   | 0    | 49.40 | 56.40 | 0   | 0    |
| 50.00 | 56.00 | 0   | 0    | 49.40 | 56.20 | 0   | 0    |
| 50.00 | 55.40 | 0   | 0    | 49.40 | 56.00 | 0   | 0    |
| 50.00 | 55.20 | 0   | 0    | 49.40 | 55.20 | 0   | 0    |
| 50.00 | 55.00 | 160 | 23   | 49.40 | 55.40 | 0   | 0    |
| 50.00 | 54.40 | 160 | 23   | 49.40 | 55.00 | 0   | 0    |
| 50.00 | 54.20 | 160 | 23   | 49.40 | 54.40 | 0   | 0    |
| 50.00 | 54.00 | 160 | 23   | 49.40 | 54.20 | 0   | 0    |
| 50.00 | 53.40 | 160 | 23   | 49.40 | 54.00 | 139 | 39   |
| 50.00 | 53.20 | 160 | 23   | 49.40 | 53.40 | 149 | 45   |
| 50.00 | 53.00 | 160 | 23   | 49.40 | 53.20 | 159 | 59   |
| 50.00 | 52.40 | 160 | 23   | 49.40 | 53.00 | 159 | 59   |
| 50.00 | 52.20 | 160 | 23   | 49.40 | 52.40 | 160 | 23   |
| 50.00 | 52.00 | 160 | 23   | 49.40 | 52.20 | 160 | 23   |
| 50.00 | 51.40 | 160 | 23   | 49.40 | 52.00 | 160 | 23   |
| 50.00 | 51.20 | 160 | 23   | 49.40 | 51.40 | 160 | 23   |
| 50.00 | 51.00 | 160 | 23   | 49.40 | 51.20 | 160 | 23   |
| 50.00 | 50.40 | 160 | 23   | 49.40 | 51.00 | 160 | 23   |
| 50.00 | 50.20 | 150 | 40 * | 49.40 | 50.40 | 160 | 23 * |
| 50.00 | 50.00 | 150 | 80 * | 49.40 | 50.20 | 150 | 80 * |
| 50.00 | 49.50 | 113 | 33 * | 49.40 | 50.00 | 150 | 80 * |
| 50.00 | 49.40 | 102 | 27 * | 49.40 | 49.50 | 150 | 80 * |
| 50.00 | 49.30 | 109 | 34 * | 49.40 | 49.40 | 103 | 18 * |
| 50.00 | 49.20 | 126 | 45 * | 49.40 | 49.30 | 42  | 17 * |
| 50.00 | 49.10 | 137 | 42 * | 49.40 | 49.20 | 166 | 31 * |
| 50.00 | 49.00 | 103 | 16 * | 49.40 | 49.10 | 171 | 44 * |
| 50.00 | 48.50 | 12  | 22 * | 49.40 | 49.00 | 170 | 45 * |
| 50.00 | 48.40 | 1   | 20 * | 49.40 | 48.50 | 94  | 4 *  |
| 50.00 | 48.30 | 0   | 10 * | 49.40 | 48.40 | 2   | 14 * |
| 50.00 | 48.20 | 2   | 11 * | 49.40 | 48.30 | 357 | 12 * |
| 50.00 | 48.10 | 351 | 15 * | 49.40 | 48.20 | 358 | 8 *  |
| 50.00 | 48.00 | 342 | 11 * | 49.40 | 48.10 | 342 | 5 *  |
| 50.00 | 47.50 | 349 | 3 *  | 49.40 | 48.00 | 340 | 13 * |
| 50.00 | 47.40 | 118 | 3 *  | 49.40 | 47.50 | 340 | 16 * |
| 50.00 | 47.30 | 127 | 6 *  | 49.40 | 47.40 | 322 | 9 *  |
| 50.00 | 47.20 | 113 | 8 *  | 49.40 | 47.30 | 285 | 7 *  |
| 50.00 | 47.10 | 71  | 14 * | 49.40 | 47.20 | 1   | 10 * |
| 50.00 | 47.00 | 78  | 24 * | 49.40 | 47.10 | 8   | 2 *  |
| 50.00 | 46.50 | 59  | 37 * | 49.40 | 47.00 | 10  | 36 * |
| 50.00 | 46.40 | 33  | 56 * | 49.40 | 46.50 | 11  | 34 * |
| 50.00 | 46.30 | 13  | 64 * | 49.40 | 46.40 | 5   | 19 * |
| 50.00 | 46.20 | 352 | 38 * | 49.40 | 46.30 | 259 | 9 *  |
| 50.00 | 46.10 | 275 | 18 * | 49.40 | 46.20 | 227 | 26 * |
| 50.00 | 46.00 | 238 | 29 * | 49.40 | 46.10 | 221 | 35 * |
| 50.00 | 45.40 | 231 | 33 * | 49.40 | 46.00 | 220 | 35 * |
| 50.00 | 45.20 | 235 | 28 * | 49.40 | 45.40 | 225 | 27 * |
| 50.00 | 45.00 | 0   | 0 *  | 49.40 | 45.20 | 198 | 22 * |
| 50.00 | 44.40 | 171 | 32   | 49.40 | 45.00 | 0   | 0 *  |
| 50.00 | 44.20 | 98  | 32   | 49.40 | 44.40 | 171 | 32   |
| 50.00 | 44.00 | 98  | 32   | 49.40 | 44.20 | 90  | 34   |
| 50.00 | 43.40 | 98  | 32   | 49.40 | 44.00 | 90  | 34   |



| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 49.40 | 43.40 | 90  | 30   | 49.20 | 44.00 | 79  | 37   |
| 49.40 | 43.20 | 90  | 30   | 49.20 | 43.40 | 81  | 30   |
| 49.40 | 43.00 | 90  | 30   | 49.20 | 43.20 | 81  | 30   |
| 49.40 | 42.40 | 90  | 20   | 49.20 | 43.00 | 81  | 30   |
| 49.40 | 42.20 | 90  | 20   | 49.20 | 42.40 | 82  | 18   |
| 49.40 | 42.00 | 90  | 20   | 49.20 | 42.20 | 82  | 18   |
| 49.40 | 41.40 | 90  | 20   | 49.20 | 42.00 | 82  | 18   |
| 49.40 | 41.20 | 90  | 20   | 49.20 | 41.40 | 82  | 18   |
| 49.40 | 41.00 | 92  | 18   | 49.20 | 41.20 | 82  | 18   |
| 49.40 | 40.40 | 92  | 18   | 49.20 | 41.00 | 82  | 18   |
| 49.40 | 40.20 | 92  | 18   | 49.20 | 40.40 | 82  | 18   |
| 49.40 | 40.00 | 83  | 21   | 49.20 | 40.20 | 82  | 18   |
| 49.40 | 39.40 | 78  | 23   | 49.20 | 40.00 | 82  | 18   |
| 49.40 | 39.20 | 78  | 23   | 49.20 | 39.40 | 78  | 23   |
| 49.40 | 39.00 | 78  | 23   | 49.20 | 39.20 | 78  | 23   |
| 49.20 | 57.00 | 0   | 0    | 49.20 | 39.00 | 78  | 23   |
| 49.20 | 56.40 | 0   | 0    | 49.00 | 57.00 | 0   | 0    |
| 49.20 | 56.20 | 0   | 0    | 49.00 | 56.40 | 0   | 0    |
| 49.20 | 56.00 | 0   | 0    | 49.00 | 56.20 | 0   | 0    |
| 49.20 | 55.40 | 0   | 0    | 49.00 | 56.00 | 0   | 0    |
| 49.20 | 55.20 | 0   | 0    | 49.00 | 55.40 | 0   | 0    |
| 49.20 | 55.00 | 0   | 0    | 49.00 | 55.20 | 0   | 0    |
| 49.20 | 54.40 | 0   | 0    | 49.00 | 55.00 | 0   | 0    |
| 49.20 | 54.20 | 0   | 0    | 49.00 | 54.40 | 0   | 0    |
| 49.20 | 54.00 | 0   | 0    | 49.00 | 54.20 | 0   | 0    |
| 49.20 | 53.40 | 0   | 0    | 49.00 | 54.00 | 0   | 0    |
| 49.20 | 53.20 | 149 | 45   | 49.00 | 53.40 | 0   | 0    |
| 49.20 | 53.00 | 160 | 49   | 49.00 | 53.20 | 149 | 45   |
| 49.20 | 52.40 | 160 | 23   | 49.00 | 53.00 | 160 | 49   |
| 49.20 | 52.20 | 160 | 23   | 49.00 | 52.40 | 160 | 49   |
| 49.20 | 52.00 | 160 | 23   | 49.00 | 52.20 | 160 | 23   |
| 49.20 | 51.40 | 155 | 34 * | 49.00 | 52.00 | 160 | 23   |
| 49.20 | 51.20 | 124 | 30 * | 49.00 | 51.40 | 128 | 23 * |
| 49.20 | 51.00 | 99  | 15 * | 49.00 | 51.20 | 122 | 29 * |
| 49.20 | 50.40 | 104 | 24 * | 49.00 | 51.00 | 127 | 22 * |
| 49.20 | 50.20 | 111 | 30 * | 49.00 | 50.40 | 125 | 16 * |
| 49.20 | 50.00 | 153 | 80 * | 49.00 | 50.20 | 150 | 14 * |
| 49.20 | 49.50 | 157 | 80 * | 49.00 | 50.00 | 150 | 80 * |
| 49.20 | 49.40 | 150 | 80 * | 49.00 | 49.50 | 153 | 80 * |
| 49.20 | 49.30 | 173 | 37 * | 49.00 | 49.40 | 153 | 80 * |
| 49.20 | 49.20 | 181 | 36 * | 49.00 | 49.30 | 144 | 26 * |
| 49.20 | 49.10 | 170 | 30 * | 49.00 | 49.20 | 140 | 33 * |
| 49.20 | 49.00 | 137 | 22 * | 49.00 | 49.10 | 136 | 36 * |
| 49.20 | 48.50 | 99  | 18 * | 49.00 | 49.00 | 126 | 31 * |
| 49.20 | 48.40 | 90  | 14 * | 49.00 | 48.50 | 120 | 24 * |
| 49.20 | 48.30 | 62  | 7 *  | 49.00 | 48.40 | 142 | 25 * |
| 49.20 | 48.20 | 6   | 4 *  | 49.00 | 48.30 | 158 | 27 * |
| 49.20 | 48.10 | 2   | 3 *  | 49.00 | 48.20 | 153 | 11 * |
| 49.20 | 48.00 | 24  | 1 *  | 49.00 | 48.10 | 12  | 6 *  |
| 49.20 | 47.50 | 287 | 2 *  | 49.00 | 48.00 | 2   | 5 *  |
| 49.20 | 47.40 | 320 | 7 *  | 49.00 | 47.50 | 38  | 2 *  |
| 49.20 | 47.30 | 330 | 14 * | 49.00 | 47.40 | 25  | 7 *  |
| 49.20 | 47.20 | 352 | 16 * | 49.00 | 47.30 | 11  | 12 * |
| 49.20 | 47.10 | 342 | 18 * | 49.00 | 47.20 | 355 | 7 *  |
| 49.20 | 47.00 | 317 | 19 * | 49.00 | 47.10 | 286 | 5 *  |
| 49.20 | 46.50 | 291 | 21 * | 49.00 | 47.00 | 286 | 9 *  |
| 49.20 | 46.40 | 271 | 25 * | 49.00 | 46.50 | 294 | 10 * |
| 49.20 | 46.30 | 256 | 26 * | 49.00 | 46.40 | 275 | 9 *  |
| 49.20 | 46.20 | 249 | 23 * | 49.00 | 46.30 | 240 | 10 * |
| 49.20 | 46.10 | 246 | 20 * | 49.00 | 46.20 | 219 | 14 * |
| 49.20 | 46.00 | 246 | 15 * | 49.00 | 46.10 | 218 | 16 * |
| 49.20 | 45.40 | 200 | 22 * | 49.00 | 46.00 | 236 | 11 * |
| 49.20 | 45.20 | 210 | 13 * | 49.00 | 45.40 | 185 | 9 *  |
| 49.20 | 45.00 | 0   | 0 *  | 49.00 | 45.20 | 108 | 22 * |
| 49.20 | 44.40 | 225 | 26   | 49.00 | 45.00 | 87  | 20 * |
| 49.20 | 44.20 | 90  | 37   | 49.00 | 44.40 | 90  | 37   |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 49.00 | 44.20 | 90  | 37   | 48.40 | 44.40 | 100 | 37   |
| 49.00 | 44.00 | 79  | 37   | 48.40 | 44.20 | 90  | 37   |
| 49.00 | 43.40 | 79  | 37   | 48.40 | 44.00 | 79  | 37   |
| 49.00 | 43.20 | 79  | 37   | 48.40 | 43.40 | 69  | 39   |
| 49.00 | 43.00 | 69  | 39   | 48.40 | 43.20 | 59  | 40   |
| 49.00 | 42.40 | 68  | 25   | 48.40 | 43.00 | 59  | 40   |
| 49.00 | 42.20 | 68  | 25   | 48.40 | 42.40 | 61  | 29   |
| 49.00 | 42.00 | 68  | 25   | 48.40 | 42.20 | 60  | 23   |
| 49.00 | 41.40 | 79  | 26   | 48.40 | 42.00 | 68  | 25   |
| 49.00 | 41.20 | 79  | 26   | 48.40 | 41.40 | 71  | 29   |
| 49.00 | 41.00 | 79  | 26   | 48.40 | 41.20 | 71  | 29   |
| 49.00 | 40.40 | 42  | 18   | 48.40 | 41.00 | 81  | 30   |
| 49.00 | 40.20 | 42  | 18   | 48.40 | 40.40 | 82  | 18   |
| 49.00 | 40.00 | 42  | 18   | 48.40 | 40.20 | 82  | 18   |
| 49.00 | 39.40 | 79  | 26   | 48.40 | 40.00 | 82  | 18   |
| 49.00 | 39.20 | 79  | 26   | 48.40 | 39.40 | 81  | 30   |
| 49.00 | 39.00 | 79  | 26   | 48.40 | 39.20 | 81  | 30   |
| 48.40 | 57.00 | 0   | 0    | 48.40 | 39.00 | 81  | 30   |
| 48.40 | 56.40 | 0   | 0    | 48.20 | 57.00 | 0   | 0    |
| 48.40 | 56.20 | 0   | 0    | 48.20 | 56.40 | 0   | 0    |
| 48.40 | 56.00 | 0   | 0    | 48.20 | 56.20 | 0   | 0    |
| 48.40 | 55.40 | 0   | 0    | 48.20 | 56.00 | 0   | 0    |
| 48.40 | 55.20 | 0   | 0    | 48.20 | 55.40 | 0   | 0    |
| 48.40 | 55.00 | 0   | 0    | 48.20 | 55.20 | 0   | 0    |
| 48.40 | 54.40 | 0   | 0    | 48.20 | 55.00 | 0   | 0    |
| 48.40 | 54.20 | 0   | 0    | 48.20 | 54.40 | 0   | 0    |
| 48.40 | 54.00 | 0   | 0    | 48.20 | 54.20 | 0   | 0    |
| 48.40 | 53.40 | 0   | 0    | 48.20 | 54.00 | 0   | 0    |
| 48.40 | 53.20 | 0   | 0    | 48.20 | 53.40 | 0   | 0    |
| 48.40 | 53.00 | 139 | 39   | 48.20 | 53.20 | 0   | 0    |
| 48.40 | 52.40 | 160 | 49   | 48.20 | 53.00 | 139 | 39   |
| 48.40 | 52.20 | 169 | 49   | 48.20 | 52.40 | 160 | 49   |
| 48.40 | 52.00 | 180 | 48   | 48.20 | 52.20 | 169 | 49   |
| 48.40 | 51.40 | 115 | 14 * | 48.20 | 52.00 | 180 | 48   |
| 48.40 | 51.20 | 134 | 21 * | 48.20 | 51.40 | 180 | 13   |
| 48.40 | 51.00 | 113 | 28 * | 48.20 | 51.20 | 180 | 2 *  |
| 48.40 | 50.40 | 115 | 30 * | 48.20 | 51.00 | 116 | 5 *  |
| 48.40 | 50.20 | 122 | 33 * | 48.20 | 50.40 | 117 | 17 * |
| 48.40 | 50.00 | 127 | 35 * | 48.20 | 50.20 | 117 | 24 * |
| 48.40 | 49.50 | 130 | 40 * | 48.20 | 50.00 | 104 | 28 * |
| 48.40 | 49.40 | 132 | 80 * | 48.20 | 49.50 | 101 | 34 * |
| 48.40 | 49.30 | 135 | 80 * | 48.20 | 49.40 | 118 | 44 * |
| 48.40 | 49.20 | 134 | 29 * | 48.20 | 49.30 | 130 | 57 * |
| 48.40 | 49.10 | 129 | 23 * | 48.20 | 49.20 | 131 | 61 * |
| 48.40 | 49.00 | 141 | 25 * | 48.20 | 49.10 | 130 | 57 * |
| 48.40 | 48.50 | 154 | 30 * | 48.20 | 49.00 | 128 | 52 * |
| 48.40 | 48.40 | 158 | 29 * | 48.20 | 48.50 | 124 | 49 * |
| 48.40 | 48.30 | 151 | 26 * | 48.20 | 48.40 | 121 | 48 * |
| 48.40 | 48.20 | 135 | 21 * | 48.20 | 48.30 | 117 | 45 * |
| 48.40 | 48.10 | 115 | 16 * | 48.20 | 48.20 | 103 | 41 * |
| 48.40 | 48.00 | 101 | 12 * | 48.20 | 48.10 | 93  | 40 * |
| 48.40 | 47.50 | 84  | 8 *  | 48.20 | 48.00 | 100 | 40 * |
| 48.40 | 47.40 | 41  | 5 *  | 48.20 | 47.50 | 108 | 43 * |
| 48.40 | 47.30 | 46  | 6 *  | 48.20 | 47.40 | 105 | 41 * |
| 48.40 | 47.20 | 198 | 1 *  | 48.20 | 47.30 | 98  | 34 * |
| 48.40 | 47.10 | 185 | 6 *  | 48.20 | 47.20 | 98  | 28 * |
| 48.40 | 47.00 | 186 | 3 *  | 48.20 | 47.10 | 100 | 24 * |
| 48.40 | 46.50 | 326 | 1 *  | 48.20 | 47.00 | 96  | 22 * |
| 48.40 | 46.40 | 251 | 1 *  | 48.20 | 46.50 | 93  | 19 * |
| 48.40 | 46.30 | 189 | 3 *  | 48.20 | 46.40 | 102 | 15 * |
| 48.40 | 46.20 | 155 | 3 *  | 48.20 | 46.30 | 111 | 12 * |
| 48.40 | 46.10 | 99  | 5 *  | 48.20 | 46.20 | 89  | 8 *  |
| 48.40 | 46.00 | 79  | 7 *  | 48.20 | 46.10 | 74  | 9 *  |
| 48.40 | 45.40 | 12  | 21 * | 48.20 | 46.00 | 115 | 11 * |
| 48.40 | 45.20 | 43  | 22 * | 48.20 | 45.40 | 60  | 7 *  |
| 48.40 | 45.00 | 76  | 22 * | 48.20 | 45.20 | 1   | 20 * |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 48.20 | 45.00 | 24  | 20 * | 48.00 | 45.20 | 17  | 16 * |
| 48.20 | 44.40 | 100 | 37   | 48.00 | 45.00 | 137 | 34   |
| 48.20 | 44.20 | 90  | 37   | 48.00 | 44.40 | 109 | 34   |
| 48.20 | 44.00 | 79  | 37   | 48.00 | 44.20 | 90  | 34   |
| 48.20 | 43.40 | 70  | 42   | 48.00 | 44.00 | 71  | 29   |
| 48.20 | 43.20 | 70  | 42   | 48.00 | 43.40 | 50  | 36   |
| 48.20 | 43.00 | 70  | 42   | 48.00 | 43.20 | 50  | 36   |
| 48.20 | 42.40 | 61  | 29   | 48.00 | 43.00 | 50  | 36   |
| 48.20 | 42.20 | 60  | 23   | 48.00 | 42.40 | 51  | 29   |
| 48.20 | 42.00 | 60  | 23   | 48.00 | 42.20 | 61  | 29   |
| 48.20 | 41.40 | 61  | 29   | 48.00 | 42.00 | 61  | 29   |
| 46.20 | 41.20 | 61  | 29   | 48.00 | 41.40 | 71  | 29   |
| 48.20 | 41.00 | 61  | 30   | 48.00 | 41.20 | 71  | 29   |
| 48.20 | 40.40 | 62  | 18   | 48.00 | 41.00 | 71  | 29   |
| 48.20 | 40.20 | 62  | 18   | 48.00 | 40.40 | 66  | 17   |
| 48.20 | 40.00 | 62  | 18   | 48.00 | 40.20 | 66  | 17   |
| 48.20 | 39.40 | 78  | 35   | 48.00 | 40.00 | 66  | 17   |
| 48.20 | 39.20 | 78  | 35   | 48.00 | 39.40 | 77  | 21   |
| 48.20 | 39.00 | 78  | 35   | 48.00 | 39.20 | 77  | 21   |
| 48.00 | 57.00 | 0   | 0    | 48.00 | 39.00 | 77  | 21   |
| 48.00 | 56.40 | 0   | 0    | 47.40 | 57.00 | 0   | 0    |
| 48.00 | 56.20 | 0   | 0    | 47.40 | 56.40 | 0   | 0    |
| 48.00 | 56.00 | 0   | 0    | 47.40 | 56.20 | 0   | 0    |
| 48.00 | 55.40 | 0   | 0    | 47.40 | 56.00 | 0   | 0    |
| 48.00 | 55.20 | 0   | 0    | 47.40 | 55.40 | 0   | 0    |
| 48.00 | 55.00 | 0   | 0    | 47.40 | 55.20 | 0   | 0    |
| 48.00 | 54.40 | 0   | 0    | 47.40 | 55.00 | 0   | 0    |
| 48.00 | 54.20 | 0   | 0    | 47.40 | 54.40 | 0   | 0    |
| 48.00 | 54.00 | 0   | 0    | 47.40 | 54.20 | 0   | 0    |
| 48.00 | 53.40 | 0   | 0    | 47.40 | 54.00 | 0   | 0    |
| 48.00 | 53.20 | 0   | 0    | 47.40 | 53.40 | 0   | 0    |
| 48.00 | 53.00 | 0   | 0    | 47.40 | 53.20 | 0   | 0    |
| 48.00 | 52.40 | 171 | 44   | 47.40 | 53.00 | 0   | 0    |
| 48.00 | 52.20 | 169 | 49   | 47.40 | 52.40 | 169 | 40   |
| 48.00 | 52.00 | 190 | 49   | 47.40 | 52.20 | 180 | 53   |
| 48.00 | 51.40 | 220 | 23 * | 47.40 | 52.00 | 199 | 49   |
| 48.00 | 51.20 | 206 | 10   | 47.40 | 51.40 | 199 | 23   |
| 48.00 | 51.00 | 206 | 10 * | 47.40 | 51.20 | 188 | 23   |
| 48.00 | 50.40 | 153 | 10 * | 47.40 | 51.00 | 180 | 23 * |
| 48.00 | 50.20 | 169 | 7 *  | 47.40 | 50.40 | 171 | 7    |
| 48.00 | 50.00 | 90  | 9 *  | 47.40 | 50.20 | 326 | 2 *  |
| 48.00 | 49.50 | 104 | 7 *  | 47.40 | 50.00 | 302 | 1 *  |
| 48.00 | 49.40 | 138 | 10 * | 47.40 | 49.50 | 185 | 12 * |
| 48.00 | 49.30 | 139 | 17 * | 47.40 | 49.40 | 194 | 12 * |
| 48.00 | 49.20 | 129 | 26   | 47.40 | 49.30 | 224 | 4 *  |
| 48.00 | 49.10 | 122 | 35 * | 47.40 | 49.20 | 243 | 7 *  |
| 48.00 | 49.00 | 120 | 44 * | 47.40 | 49.10 | 248 | 5 *  |
| 48.00 | 48.50 | 119 | 49 * | 47.40 | 49.00 | 223 | 4 *  |
| 48.00 | 48.40 | 114 | 52 * | 47.40 | 48.50 | 156 | 4 *  |
| 48.00 | 48.30 | 108 | 57 * | 47.40 | 48.40 | 95  | 7 *  |
| 48.00 | 48.20 | 104 | 59 * | 47.40 | 48.30 | 81  | 7 *  |
| 48.00 | 48.10 | 101 | 57 * | 47.40 | 48.20 | 110 | 10 * |
| 48.00 | 48.00 | 96  | 53 * | 47.40 | 48.10 | 135 | 15 * |
| 48.00 | 47.50 | 95  | 50 * | 47.40 | 48.00 | 143 | 22 * |
| 48.00 | 47.40 | 109 | 49 * | 47.40 | 47.50 | 146 | 28 * |
| 48.00 | 47.30 | 123 | 52 * | 47.40 | 47.40 | 151 | 32 * |
| 48.00 | 47.20 | 128 | 48 * | 47.40 | 47.30 | 161 | 36 * |
| 48.00 | 47.10 | 132 | 39 * | 47.40 | 47.20 | 171 | 44 * |
| 48.00 | 47.00 | 141 | 30 * | 47.40 | 47.10 | 178 | 49 * |
| 48.00 | 46.50 | 156 | 24 * | 47.40 | 47.00 | 181 | 44 * |
| 48.00 | 46.40 | 171 | 22 * | 47.40 | 46.50 | 181 | 35 * |
| 48.00 | 46.30 | 182 | 18 * | 47.40 | 46.40 | 176 | 26 * |
| 48.00 | 46.20 | 210 | 4 *  | 47.40 | 46.30 | 164 | 15 * |
| 48.00 | 46.10 | 343 | 8 *  | 47.40 | 46.20 | 97  | 7 *  |
| 48.00 | 46.00 | 359 | 6 *  | 47.40 | 46.10 | 45  | 15 * |
| 48.00 | 45.40 | 44  | 13 * | 47.40 | 46.00 | 43  | 20 * |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 47.40 | 45.40 | 68  | 14 * | 47.20 | 46.00 | 33  | 19 * |
| 47.40 | 45.20 | 83  | 7 *  | 47.20 | 45.40 | 69  | 2 *  |
| 47.40 | 45.00 | 149 | 32   | 47.20 | 45.20 | 28  | 5 *  |
| 47.40 | 44.40 | 120 | 32   | 47.20 | 45.00 | 323 | 8 *  |
| 47.40 | 44.20 | 95  | 32   | 47.20 | 44.40 | 140 | 18   |
| 47.40 | 44.00 | 81  | 32   | 47.20 | 44.20 | 131 | 24   |
| 47.40 | 43.40 | 59  | 32   | 47.20 | 44.00 | 90  | 27   |
| 47.40 | 43.20 | 48  | 31   | 47.20 | 43.40 | 52  | 26   |
| 47.40 | 43.00 | 50  | 33   | 47.20 | 43.20 | 41  | 24   |
| 47.40 | 42.40 | 50  | 33   | 47.20 | 43.00 | 37  | 26   |
| 47.40 | 42.20 | 50  | 33   | 47.20 | 42.40 | 39  | 36   |
| 47.40 | 42.00 | 50  | 33   | 47.20 | 42.20 | 39  | 36   |
| 47.40 | 41.40 | 48  | 24   | 47.20 | 42.00 | 39  | 36   |
| 47.40 | 41.20 | 48  | 24   | 47.20 | 41.40 | 41  | 24   |
| 47.40 | 41.00 | 48  | 24   | 47.20 | 41.20 | 41  | 24   |
| 47.40 | 40.40 | 49  | 21   | 47.20 | 41.00 | 41  | 24   |
| 47.40 | 40.20 | 60  | 18   | 47.20 | 40.40 | 40  | 21   |
| 47.40 | 40.00 | 60  | 18   | 47.20 | 40.20 | 40  | 21   |
| 47.40 | 39.40 | 60  | 23   | 47.20 | 40.00 | 49  | 21   |
| 47.40 | 39.20 | 60  | 23   | 47.20 | 39.40 | 48  | 24   |
| 47.40 | 39.00 | 60  | 23   | 47.20 | 39.20 | 48  | 24   |
| 47.20 | 39.00 | 0   | 0    | 47.20 | 39.00 | 48  | 24   |
| 47.20 | 56.40 | 0   | 0    | 47.00 | 57.00 | 0   | 0    |
| 47.20 | 56.20 | 0   | 0    | 47.00 | 56.40 | 0   | 0    |
| 47.20 | 56.00 | 0   | 0    | 47.00 | 56.20 | 0   | 0    |
| 47.20 | 55.40 | 0   | 0    | 47.00 | 56.00 | 0   | 0    |
| 47.20 | 55.20 | 0   | 0    | 47.00 | 55.40 | 0   | 0    |
| 47.20 | 55.00 | 0   | 0    | 47.00 | 55.20 | 0   | 0    |
| 47.20 | 54.40 | 0   | 0    | 47.00 | 55.00 | 0   | 0    |
| 47.20 | 54.20 | 0   | 0    | 47.00 | 54.40 | 0   | 0    |
| 47.20 | 54.00 | 0   | 0    | 47.00 | 54.20 | 0   | 0    |
| 47.20 | 53.40 | 0   | 0    | 47.00 | 54.00 | 0   | 0    |
| 47.20 | 53.20 | 0   | 0    | 47.00 | 53.40 | 0   | 0    |
| 47.20 | 53.00 | 0   | 0    | 47.00 | 53.20 | 0   | 0    |
| 47.20 | 52.40 | 201 | 44   | 47.00 | 53.00 | 0   | 0    |
| 47.20 | 52.20 | 199 | 49   | 47.00 | 52.40 | 209 | 47   |
| 47.20 | 52.00 | 199 | 49   | 47.00 | 52.20 | 210 | 51   |
| 47.20 | 51.40 | 199 | 23   | 47.00 | 52.00 | 199 | 49   |
| 47.20 | 51.20 | 188 | 23   | 47.00 | 51.40 | 191 | 23   |
| 47.20 | 51.00 | 180 | 23   | 47.00 | 51.20 | 180 | 23   |
| 47.20 | 50.40 | 169 | 23   | 47.00 | 51.00 | 180 | 23   |
| 47.20 | 50.20 | 169 | 23   | 47.00 | 50.40 | 180 | 23   |
| 47.20 | 50.00 | 231 | 8 *  | 47.00 | 50.20 | 169 | 23   |
| 47.20 | 49.50 | 241 | 8 *  | 47.00 | 50.00 | 169 | 23   |
| 47.20 | 49.40 | 187 | 8 *  | 47.00 | 49.50 | 174 | 23   |
| 47.20 | 49.30 | 151 | 14 * | 47.00 | 49.40 | 180 | 23   |
| 47.20 | 49.20 | 170 | 9 *  | 47.00 | 49.30 | 180 | 23   |
| 47.20 | 49.10 | 152 | 3 *  | 47.00 | 49.20 | 180 | 30   |
| 47.20 | 49.00 | 100 | 3 *  | 47.00 | 49.10 | 184 | 30   |
| 47.20 | 48.50 | 158 | 2 *  | 47.00 | 49.00 | 188 | 30   |
| 47.20 | 48.40 | 231 | 10 * | 47.00 | 48.50 | 192 | 31   |
| 47.20 | 48.30 | 193 | 10 * | 47.00 | 48.40 | 198 | 29   |
| 47.20 | 48.20 | 224 | 12 * | 47.00 | 48.30 | 198 | 29   |
| 47.20 | 48.10 | 240 | 6 *  | 47.00 | 48.20 | 50  | 18 * |
| 47.20 | 48.00 | 355 | 5 *  | 47.00 | 48.10 | 69  | 17   |
| 47.20 | 47.50 | 59  | 4 *  | 47.00 | 48.00 | 91  | 14 * |
| 47.20 | 47.40 | 163 | 25 * | 47.00 | 47.50 | 128 | 14 * |
| 47.20 | 47.30 | 170 | 52 * | 47.00 | 47.40 | 154 | 23 * |
| 47.20 | 47.20 | 170 | 58 * | 47.00 | 47.30 | 160 | 46 * |
| 47.20 | 47.10 | 165 | 51 * | 47.00 | 47.20 | 161 | 58 * |
| 47.20 | 47.00 | 162 | 40 * | 47.00 | 47.10 | 166 | 67 * |
| 47.20 | 46.50 | 160 | 29 * | 47.00 | 47.00 | 172 | 75 * |
| 47.20 | 46.40 | 159 | 19 * | 47.00 | 46.50 | 177 | 53 * |
| 47.20 | 46.30 | 125 | 10 * | 47.00 | 46.40 | 181 | 27 * |
| 47.20 | 46.20 | 44  | 16 * | 47.00 | 46.30 | 337 | 0 *  |
| 47.20 | 46.10 | 27  | 26 * | 47.00 | 46.20 | 357 | 9 *  |

| LAT   | LONG  | DIR | SPD  |       |       |     |       |
|-------|-------|-----|------|-------|-------|-----|-------|
| 47.00 | 46.10 | 337 | 8 *  | 46.40 | 46.20 | 354 | 7 *   |
| 47.00 | 46.00 | 276 | 7 *  | 46.40 | 46.10 | 351 | 6 *   |
| 47.00 | 45.40 | 232 | 13 * | 46.40 | 46.00 | 236 | 1 *   |
| 47.00 | 45.20 | 294 | 13 * | 46.40 | 45.40 | 217 | 5 *   |
| 47.00 | 45.00 | 254 | 13   | 46.40 | 45.20 | 274 | 2 *   |
| 47.00 | 44.40 | 158 | 15   | 46.40 | 45.00 | 306 | 6 *   |
| 47.00 | 44.20 | 100 | 26   | 46.40 | 44.40 | 31  | 7 *   |
| 47.00 | 44.00 | 90  | 30   | 46.40 | 44.20 | 100 | 26    |
| 47.00 | 43.40 | 81  | 30   | 46.40 | 44.00 | 90  | 30    |
| 47.00 | 43.20 | 59  | 32   | 46.40 | 43.40 | 68  | 32    |
| 47.00 | 43.00 | 50  | 33   | 46.40 | 43.20 | 71  | 36    |
| 47.00 | 42.40 | 50  | 36   | 46.40 | 43.00 | 60  | 37    |
| 47.00 | 42.20 | 50  | 36   | 46.40 | 42.40 | 49  | 39    |
| 47.00 | 42.00 | 50  | 36   | 46.40 | 42.20 | 49  | 39    |
| 47.00 | 41.40 | 38  | 29   | 46.40 | 42.00 | 49  | 39    |
| 47.00 | 41.20 | 38  | 29   | 46.40 | 41.40 | 50  | 36    |
| 47.00 | 41.00 | 34  | 29   | 46.40 | 41.20 | 50  | 36    |
| 47.00 | 40.40 | 40  | 21   | 46.40 | 41.00 | 61  | 29    |
| 47.00 | 40.20 | 40  | 21   | 46.40 | 40.40 | 60  | 18    |
| 47.00 | 40.00 | 44  | 21   | 46.40 | 40.20 | 44  | 21    |
| 47.00 | 39.40 | 49  | 21   | 46.40 | 40.00 | 44  | 21    |
| 47.00 | 39.20 | 49  | 21   | 46.40 | 39.40 | 51  | 14    |
| 47.00 | 39.00 | 49  | 21   | 46.40 | 39.20 | 51  | 14    |
| 46.40 | 57.00 | 0   | 0    | 46.40 | 39.00 | 51  | 14    |
| 46.40 | 56.40 | 0   | 0    | 46.20 | 57.00 | 269 | 23    |
| 46.40 | 56.20 | 0   | 0    | 46.20 | 56.40 | 269 | 23    |
| 46.40 | 56.00 | 0   | 0    | 46.20 | 56.20 | 269 | 23    |
| 46.40 | 55.40 | 0   | 0    | 46.20 | 56.00 | 269 | 23    |
| 46.40 | 55.20 | 0   | 0    | 46.20 | 55.40 | 269 | 23    |
| 46.40 | 55.00 | 0   | 0    | 46.20 | 55.20 | 269 | 23    |
| 46.40 | 54.40 | 0   | 0    | 46.20 | 55.00 | 269 | 23    |
| 46.40 | 54.20 | 0   | 0    | 46.20 | 54.40 | 250 | 23    |
| 46.40 | 54.00 | 0   | 0    | 46.20 | 54.20 | 239 | 23    |
| 46.40 | 53.40 | 0   | 0    | 46.20 | 54.00 | 228 | 23    |
| 46.40 | 53.20 | 0   | 0    | 46.20 | 53.40 | 229 | 23    |
| 46.40 | 53.00 | 229 | 39   | 46.20 | 53.20 | 231 | 23    |
| 46.40 | 52.40 | 220 | 39   | 46.20 | 53.00 | 220 | 23    |
| 46.40 | 52.20 | 221 | 49   | 46.20 | 52.40 | 221 | 23    |
| 46.40 | 52.00 | 210 | 51   | 46.20 | 52.20 | 210 | 23    |
| 46.40 | 51.40 | 199 | 23   | 46.20 | 52.00 | 210 | 23    |
| 46.40 | 51.20 | 188 | 20   | 46.20 | 51.40 | 208 | 23    |
| 46.40 | 51.00 | 190 | 23   | 46.20 | 51.20 | 208 | 23    |
| 46.40 | 50.40 | 190 | 23   | 46.20 | 51.00 | 201 | 24    |
| 46.40 | 50.20 | 180 | 23   | 46.20 | 50.40 | 201 | 24    |
| 46.40 | 50.00 | 180 | 23   | 46.20 | 50.20 | 190 | 23    |
| 46.40 | 49.50 | 144 | 23   | 46.20 | 50.00 | 190 | 23    |
| 46.40 | 49.40 | 188 | 23   | 46.20 | 49.50 | 189 | 23    |
| 46.40 | 49.30 | 188 | 23   | 46.20 | 49.40 | 188 | 23    |
| 46.40 | 49.20 | 188 | 23   | 46.20 | 49.30 | 193 | 23    |
| 46.40 | 49.10 | 188 | 23   | 46.20 | 49.20 | 198 | 23    |
| 46.40 | 49.00 | 217 | 12 * | 46.20 | 49.10 | 198 | 23    |
| 46.40 | 48.50 | 155 | 12 * | 46.20 | 49.00 | 184 | 4 *   |
| 46.40 | 48.40 | 110 | 5 *  | 46.20 | 48.50 | 214 | 6 *   |
| 46.40 | 48.30 | 57  | 12 * | 46.20 | 48.40 | 270 | 4 *   |
| 46.40 | 48.20 | 50  | 1 *  | 46.20 | 48.30 | 296 | 7 *   |
| 46.40 | 48.10 | 213 | 6 *  | 46.20 | 48.20 | 233 | 5 *   |
| 46.40 | 48.00 | 275 | 5 *  | 46.20 | 48.10 | 196 | 9 *   |
| 46.40 | 47.50 | 303 | 2 *  | 46.20 | 48.00 | 243 | 3 *   |
| 46.40 | 47.40 | 179 | 21 * | 46.20 | 47.50 | 254 | 10 *  |
| 46.40 | 47.30 | 185 | 65 * | 46.20 | 47.40 | 208 | 52 *  |
| 46.40 | 47.20 | 192 | 88 * | 46.20 | 47.30 | 202 | 97 *  |
| 46.40 | 47.10 | 197 | 94 * | 46.20 | 47.20 | 201 | 103 * |
| 46.40 | 47.00 | 200 | 79 * | 46.20 | 47.10 | 195 | 80 *  |
| 46.40 | 46.50 | 201 | 38 * | 46.20 | 47.00 | 186 | 34 *  |
| 46.40 | 46.40 | 195 | 15 * | 46.20 | 46.50 | 153 | 11 *  |
| 46.40 | 46.30 | 321 | 0 *  | 46.20 | 46.40 | 75  | 9 *   |

| LAT   | LONG  | DIR | SPD  |       |       |      |      |
|-------|-------|-----|------|-------|-------|------|------|
| 46.20 | 46.30 | 58  | 14 * | 46.00 | 46.40 | 68 * | 15   |
| 46.20 | 46.20 | 61  | 17 * | 46.00 | 46.30 | 50 * | 16   |
| 46.20 | 46.10 | 76  | 15 * | 46.00 | 46.20 | 43 * | 14   |
| 46.20 | 46.00 | 115 | 16 * | 46.00 | 46.10 | 56 * | 12   |
| 46.20 | 45.40 | 122 | 15 * | 46.00 | 46.00 | 99 * | 12   |
| 46.20 | 45.20 | 82  | 17 * | 46.00 | 45.40 | 88 * | 20   |
| 46.20 | 45.00 | 64  | 23 * | 46.00 | 45.20 | 70 * | 24   |
| 46.20 | 44.40 | 63  | 32 * | 46.00 | 45.00 | 67 * | 21   |
| 46.20 | 44.20 | 74  | 26   | 46.00 | 44.40 | 18 * | 46   |
| 46.20 | 44.00 | 67  | 30   | 46.00 | 44.20 | 68   | 25   |
| 46.20 | 43.40 | 67  | 30   | 46.00 | 44.00 | 71   | 29   |
| 46.20 | 43.20 | 71  | 36   | 46.00 | 43.40 | 68   | 37   |
| 46.20 | 43.00 | 69  | 47   | 46.00 | 43.20 | 69   | 39   |
| 46.20 | 42.40 | 69  | 39   | 46.00 | 43.00 | 70   | 42   |
| 46.20 | 42.20 | 59  | 40   | 46.00 | 42.40 | 69   | 39   |
| 46.20 | 42.00 | 59  | 40   | 46.00 | 42.20 | 69   | 39   |
| 46.20 | 41.40 | 58  | 35   | 46.00 | 42.00 | 71   | 29   |
| 46.20 | 41.20 | 58  | 35   | 46.00 | 41.40 | 68   | 25   |
| 46.20 | 41.00 | 61  | 29   | 46.00 | 41.20 | 68   | 25   |
| 46.20 | 40.40 | 60  | 18   | 46.00 | 41.00 | 60   | 23   |
| 46.20 | 40.20 | 49  | 21   | 46.00 | 40.40 | 60   | 18   |
| 46.20 | 40.00 | 49  | 21   | 46.00 | 40.20 | 60   | 18   |
| 46.20 | 39.40 | 51  | 14   | 46.00 | 40.00 | 49   | 21   |
| 46.20 | 39.20 | 51  | 14   | 46.00 | 39.40 | 51   | 14   |
| 46.20 | 39.00 | 51  | 14   | 46.00 | 39.20 | 51   | 14   |
| 46.00 | 57.00 | 259 | 23   | 46.00 | 39.00 | 51   | 14   |
| 46.00 | 56.40 | 259 | 23   | 45.40 | 57.00 | 259  | 49   |
| 46.00 | 56.20 | 259 | 23   | 45.40 | 56.40 | 259  | 23   |
| 46.00 | 56.00 | 259 | 23   | 45.40 | 56.20 | 259  | 23   |
| 46.00 | 55.40 | 259 | 23   | 45.40 | 56.00 | 259  | 23   |
| 46.00 | 55.20 | 259 | 23   | 45.40 | 55.40 | 259  | 23   |
| 46.00 | 55.00 | 259 | 23   | 45.40 | 55.20 | 259  | 23   |
| 46.00 | 54.40 | 250 | 23   | 45.40 | 55.00 | 259  | 23   |
| 46.00 | 54.20 | 240 | 23   | 45.40 | 54.40 | 250  | 23   |
| 46.00 | 54.00 | 228 | 23   | 45.40 | 54.20 | 240  | 23   |
| 46.00 | 53.40 | 231 | 23   | 45.40 | 54.00 | 228  | 23   |
| 46.00 | 53.20 | 218 | 23   | 45.40 | 53.40 | 220  | 23   |
| 46.00 | 53.00 | 218 | 23   | 45.40 | 53.20 | 218  | 23   |
| 46.00 | 52.40 | 210 | 23   | 45.40 | 53.00 | 218  | 23   |
| 46.00 | 52.20 | 210 | 23   | 45.40 | 52.40 | 219  | 23   |
| 46.00 | 52.00 | 210 | 23   | 45.40 | 52.20 | 220  | 23   |
| 46.00 | 51.40 | 208 | 23   | 45.40 | 52.00 | 219  | 23   |
| 46.00 | 51.20 | 198 | 23   | 45.40 | 51.40 | 219  | 23   |
| 46.00 | 51.00 | 201 | 23   | 45.40 | 51.20 | 221  | 25   |
| 46.00 | 50.40 | 201 | 23   | 45.40 | 51.00 | 221  | 25   |
| 46.00 | 50.20 | 201 | 23   | 45.40 | 50.40 | 228  | 23   |
| 46.00 | 50.00 | 201 | 23   | 45.40 | 50.20 | 228  | 23   |
| 46.00 | 49.50 | 199 | 23   | 45.40 | 50.00 | 231  | 23   |
| 46.00 | 49.40 | 198 | 23   | 45.40 | 49.50 | 225  | 23   |
| 46.00 | 49.30 | 204 | 23   | 45.40 | 49.40 | 218  | 23   |
| 46.00 | 49.20 | 208 | 23   | 45.40 | 49.30 | 219  | 23   |
| 46.00 | 49.10 | 209 | 23   | 45.40 | 49.20 | 177  | 12 * |
| 46.00 | 49.00 | 183 | 10   | 45.40 | 49.10 | 137  | 17 * |
| 46.00 | 48.50 | 178 | 11 * | 45.40 | 49.00 | 164  | 10 * |
| 46.00 | 48.40 | 166 | 4 *  | 45.40 | 48.50 | 171  | 6 *  |
| 46.00 | 48.30 | 43  | 3 *  | 45.40 | 48.40 | 222  | 7 *  |
| 46.00 | 48.20 | 177 | 1 *  | 45.40 | 48.30 | 237  | 23 * |
| 46.00 | 48.10 | 208 | 14 * | 45.40 | 48.20 | 226  | 63 * |
| 46.00 | 48.00 | 215 | 31 * | 45.40 | 48.10 | 222  | 87 * |
| 46.00 | 47.50 | 217 | 70 * | 45.40 | 48.00 | 219  | 92 * |
| 46.00 | 47.40 | 213 | 96 * | 45.40 | 47.50 | 217  | 59 * |
| 46.00 | 47.30 | 208 | 98 * | 45.40 | 47.40 | 215  | 38 * |
| 46.00 | 47.20 | 209 | 43 * | 45.40 | 47.30 | 195  | 13 * |
| 46.00 | 47.10 | 229 | 8 *  | 45.40 | 47.20 | 86   | 9 *  |
| 46.00 | 47.00 | 64  | 6 *  | 45.40 | 47.10 | 55   | 16 * |
| 46.00 | 46.50 | 82  | 12 * | 45.40 | 47.00 | 41   | 17 * |

| LAT   | LONG  | DIR | SPD   |       |       |     |       |
|-------|-------|-----|-------|-------|-------|-----|-------|
| 45.40 | 46.50 | 45  | 16 *  | 45.20 | 47.00 | 73  | 22 *  |
| 45.40 | 46.40 | 75  | 12 *  | 45.20 | 46.50 | 75  | 20 *  |
| 45.40 | 46.30 | 109 | 10 *  | 45.20 | 46.40 | 94  | 16 *  |
| 45.40 | 46.20 | 87  | 5 *   | 45.20 | 46.30 | 113 | 17 *  |
| 45.40 | 46.10 | 17  | 6 *   | 45.20 | 46.20 | 111 | 17 *  |
| 45.40 | 46.00 | 14  | 6 *   | 45.20 | 46.10 | 97  | 14 *  |
| 45.40 | 45.40 | 44  | 10 *  | 45.20 | 46.00 | 74  | 12 *  |
| 45.40 | 45.20 | 79  | 12 *  | 45.20 | 45.40 | 33  | 23    |
| 45.40 | 45.00 | 59  | 18 *  | 45.20 | 45.20 | 51  | 23 *  |
| 45.40 | 44.40 | 63  | 38 *  | 45.20 | 45.00 | 40  | 38 *  |
| 45.40 | 44.20 | 68  | 25    | 45.20 | 44.40 | 5   | 45 *  |
| 45.40 | 44.00 | 71  | 24    | 45.20 | 44.20 | 68  | 25    |
| 45.40 | 43.40 | 67  | 30    | 45.20 | 44.00 | 70  | 27    |
| 45.40 | 43.20 | 70  | 34    | 45.20 | 43.40 | 71  | 29    |
| 45.40 | 43.00 | 68  | 37    | 45.20 | 43.20 | 67  | 30    |
| 45.40 | 42.40 | 71  | 22    | 45.20 | 43.00 | 68  | 32    |
| 45.40 | 42.20 | 71  | 22    | 45.20 | 42.40 | 71  | 22    |
| 45.40 | 42.00 | 82  | 18    | 45.20 | 42.20 | 77  | 21    |
| 45.40 | 41.40 | 82  | 18    | 45.20 | 42.00 | 82  | 18    |
| 45.40 | 41.20 | 82  | 18    | 45.20 | 41.40 | 82  | 18    |
| 45.40 | 41.00 | 69  | 19    | 45.20 | 41.20 | 82  | 18    |
| 45.40 | 40.40 | 60  | 18    | 45.20 | 41.00 | 69  | 19    |
| 45.40 | 40.20 | 60  | 18    | 45.20 | 40.40 | 69  | 19    |
| 45.40 | 40.00 | 50  | 18    | 45.20 | 40.20 | 60  | 18    |
| 45.40 | 39.40 | 51  | 14    | 45.20 | 40.00 | 60  | 18    |
| 45.40 | 39.20 | 51  | 14    | 45.20 | 39.40 | 51  | 14    |
| 45.40 | 39.00 | 51  | 14    | 45.20 | 39.20 | 51  | 14    |
| 45.20 | 57.00 | 259 | 49    | 45.20 | 39.00 | 51  | 14    |
| 45.20 | 56.40 | 259 | 49    | 45.00 | 57.00 | 259 | 49    |
| 45.20 | 56.20 | 259 | 23    | 45.00 | 56.40 | 259 | 49    |
| 45.20 | 56.00 | 259 | 23    | 45.00 | 56.20 | 259 | 49    |
| 45.20 | 55.40 | 259 | 23    | 45.00 | 56.00 | 259 | 23    |
| 45.20 | 55.20 | 259 | 23    | 45.00 | 55.40 | 259 | 23    |
| 45.20 | 55.00 | 259 | 23    | 45.00 | 55.20 | 259 | 23    |
| 45.20 | 54.40 | 250 | 23    | 45.00 | 55.00 | 259 | 23    |
| 45.20 | 54.20 | 240 | 23    | 45.00 | 54.40 | 250 | 23    |
| 45.20 | 54.00 | 221 | 23    | 45.00 | 54.20 | 240 | 23    |
| 45.20 | 53.40 | 221 | 23    | 45.00 | 54.00 | 218 | 23    |
| 45.20 | 53.20 | 218 | 23    | 45.00 | 53.40 | 220 | 23    |
| 45.20 | 53.00 | 220 | 23    | 45.00 | 53.20 | 220 | 23    |
| 45.20 | 52.40 | 219 | 23    | 45.00 | 53.00 | 220 | 23    |
| 45.20 | 52.20 | 219 | 23    | 45.00 | 52.40 | 219 | 23    |
| 45.20 | 52.00 | 219 | 23    | 45.00 | 52.20 | 208 | 23    |
| 45.20 | 51.40 | 208 | 23    | 45.00 | 52.00 | 208 | 23    |
| 45.20 | 51.20 | 209 | 23    | 45.00 | 51.40 | 209 | 23    |
| 45.20 | 51.00 | 209 | 23    | 45.00 | 51.20 | 209 | 23    |
| 45.20 | 50.40 | 209 | 23    | 45.00 | 51.00 | 209 | 23    |
| 45.20 | 50.20 | 209 | 23    | 45.00 | 50.40 | 208 | 23    |
| 45.20 | 50.00 | 209 | 23    | 45.00 | 50.20 | 210 | 23    |
| 45.20 | 49.50 | 213 | 23    | 45.00 | 50.00 | 208 | 23    |
| 45.20 | 49.40 | 219 | 23    | 45.00 | 49.50 | 209 | 23 *  |
| 45.20 | 49.30 | 220 | 23    | 45.00 | 49.40 | 230 | 14 *  |
| 45.20 | 49.20 | 178 | 4 *   | 45.00 | 49.30 | 141 | 13 *  |
| 45.20 | 49.10 | 134 | 1 *   | 45.00 | 49.20 | 144 | 4 *   |
| 45.20 | 49.00 | 173 | 17 *  | 45.00 | 49.10 | 187 | 9 *   |
| 45.20 | 48.50 | 195 | 42 *  | 45.00 | 49.00 | 193 | 50 *  |
| 45.20 | 48.40 | 206 | 90 *  | 45.00 | 48.50 | 194 | 115 * |
| 45.20 | 48.30 | 211 | 106 * | 45.00 | 48.40 | 198 | 108 * |
| 45.20 | 48.20 | 221 | 68 *  | 45.00 | 48.30 | 198 | 48 *  |
| 45.20 | 48.10 | 232 | 43    | 45.00 | 48.20 | 182 | 14 *  |
| 45.20 | 48.00 | 249 | 19    | 45.00 | 48.10 | 46  | 13 *  |
| 45.20 | 47.50 | 345 | 7 *   | 45.00 | 48.00 | 39  | 24 *  |
| 45.20 | 47.40 | 38  | 17 *  | 45.00 | 47.50 | 40  | 27 *  |
| 45.20 | 47.30 | 50  | 22 *  | 45.00 | 47.40 | 38  | 27 *  |
| 45.20 | 47.20 | 62  | 23 *  | 45.00 | 47.30 | 40  | 27 *  |
| 45.20 | 47.10 | 71  | 23 *  | 45.00 | 47.20 | 46  | 26 *  |

| LAT   | LONG  | DIR | SPD   |       |       |     |       |
|-------|-------|-----|-------|-------|-------|-----|-------|
| 45.00 | 47.10 | 56  | 25 *  | 44.40 | 47.20 | 43  | 30 *  |
| 45.00 | 47.00 | 72  | 25 *  | 44.40 | 47.10 | 50  | 27 *  |
| 45.00 | 46.50 | 87  | 24 *  | 44.40 | 47.00 | 64  | 23 *  |
| 45.00 | 46.40 | 93  | 25 *  | 44.40 | 46.50 | 79  | 22 *  |
| 45.00 | 46.30 | 97  | 28 *  | 44.40 | 46.40 | 79  | 23 *  |
| 45.00 | 46.20 | 106 | 30 *  | 44.40 | 46.30 | 83  | 21 *  |
| 45.00 | 46.10 | 110 | 24 *  | 44.40 | 46.20 | 113 | 22 *  |
| 45.00 | 46.00 | 94  | 22 *  | 44.40 | 46.10 | 129 | 29 *  |
| 45.00 | 45.40 | 50  | 20 *  | 44.40 | 46.00 | 120 | 28 *  |
| 45.00 | 45.20 | 26  | 36 *  | 44.40 | 45.40 | 61  | 26 *  |
| 45.00 | 45.00 | 71  | 29    | 44.40 | 45.20 | 33  | 43 *  |
| 45.00 | 44.40 | 71  | 29    | 44.40 | 45.00 | 19  | 41 *  |
| 45.00 | 44.20 | 71  | 29    | 44.40 | 44.40 | 71  | 29    |
| 45.00 | 44.00 | 71  | 29    | 44.40 | 44.20 | 68  | 32    |
| 45.00 | 43.40 | 71  | 29    | 44.40 | 44.00 | 71  | 36    |
| 45.00 | 43.20 | 71  | 36    | 44.40 | 43.40 | 71  | 36    |
| 45.00 | 43.00 | 68  | 37    | 44.40 | 43.20 | 69  | 39    |
| 45.00 | 42.40 | 78  | 35    | 44.40 | 43.00 | 70  | 42    |
| 45.00 | 42.20 | 81  | 32    | 44.40 | 42.40 | 78  | 35    |
| 45.00 | 42.00 | 81  | 30    | 44.40 | 42.20 | 78  | 35    |
| 45.00 | 41.40 | 82  | 18    | 44.40 | 42.00 | 81  | 30    |
| 45.00 | 41.20 | 82  | 18    | 44.40 | 41.40 | 79  | 26    |
| 45.00 | 41.00 | 69  | 19    | 44.40 | 41.20 | 79  | 26    |
| 45.00 | 40.40 | 71  | 22    | 44.40 | 41.00 | 79  | 26    |
| 45.00 | 40.20 | 71  | 22    | 44.40 | 40.40 | 68  | 25    |
| 45.00 | 40.00 | 69  | 19    | 44.40 | 40.20 | 68  | 25    |
| 45.00 | 39.40 | 66  | 17    | 44.40 | 40.00 | 69  | 19    |
| 45.00 | 39.20 | 66  | 17    | 44.40 | 39.40 | 69  | 19    |
| 45.00 | 39.00 | 66  | 17    | 44.40 | 39.20 | 69  | 19    |
| 44.40 | 57.00 | 261 | 44    | 44.40 | 39.00 | 69  | 19    |
| 44.40 | 56.40 | 261 | 44    | 44.20 | 57.00 | 239 | 40    |
| 44.40 | 56.20 | 261 | 44    | 44.20 | 56.40 | 239 | 40    |
| 44.40 | 56.00 | 261 | 44    | 44.20 | 56.20 | 239 | 40    |
| 44.40 | 55.40 | 261 | 44    | 44.20 | 56.00 | 239 | 40    |
| 44.40 | 55.20 | 248 | 44    | 44.20 | 55.40 | 239 | 40    |
| 44.40 | 55.00 | 248 | 44    | 44.20 | 55.20 | 239 | 40    |
| 44.40 | 54.40 | 248 | 44    | 44.20 | 55.00 | 239 | 40    |
| 44.40 | 54.20 | 239 | 45    | 44.20 | 54.40 | 239 | 40    |
| 44.40 | 54.00 | 231 | 23    | 44.20 | 54.20 | 229 | 39    |
| 44.40 | 53.40 | 230 | 23    | 44.20 | 54.00 | 220 | 39    |
| 44.40 | 53.20 | 230 | 23    | 44.20 | 53.40 | 219 | 33    |
| 44.40 | 53.00 | 227 | 23    | 44.20 | 53.20 | 221 | 23    |
| 44.40 | 52.40 | 227 | 23    | 44.20 | 53.00 | 218 | 23    |
| 44.40 | 52.20 | 218 | 23    | 44.20 | 52.40 | 220 | 23    |
| 44.40 | 52.00 | 222 | 23    | 44.20 | 52.20 | 209 | 23    |
| 44.40 | 51.40 | 221 | 23    | 44.20 | 52.00 | 209 | 23    |
| 44.40 | 51.20 | 209 | 23    | 44.20 | 51.40 | 209 | 23    |
| 44.40 | 51.00 | 209 | 23    | 44.20 | 51.20 | 209 | 23    |
| 44.40 | 50.40 | 198 | 23    | 44.20 | 51.00 | 200 | 23    |
| 44.40 | 50.20 | 198 | 23    | 44.20 | 50.40 | 198 | 23    |
| 44.40 | 50.00 | 188 | 23    | 44.20 | 50.20 | 198 | 23 *  |
| 44.40 | 49.50 | 184 | 23    | 44.20 | 50.00 | 93  | 13 *  |
| 44.40 | 49.40 | 180 | 13 *  | 44.20 | 49.50 | 109 | 6 *   |
| 44.40 | 49.30 | 180 | 4 *   | 44.20 | 49.40 | 35  | 5 *   |
| 44.40 | 49.20 | 228 | 3     | 44.20 | 49.30 | 354 | 7 *   |
| 44.40 | 49.10 | 189 | 31 *  | 44.20 | 49.20 | 231 | 6 *   |
| 44.40 | 49.00 | 187 | 94 *  | 44.20 | 49.10 | 144 | 30 *  |
| 44.40 | 48.50 | 186 | 115 * | 44.20 | 49.00 | 185 | 90 *  |
| 44.40 | 48.40 | 186 | 58    | 44.20 | 48.50 | 181 | 111 * |
| 44.40 | 48.30 | 177 | 14    | 44.20 | 48.40 | 175 | 46 *  |
| 44.40 | 48.20 | 46  | 11    | 44.20 | 48.30 | 72  | 8 *   |
| 44.40 | 48.10 | 32  | 21    | 44.20 | 48.20 | 29  | 23    |
| 44.40 | 48.00 | 27  | 26    | 44.20 | 48.10 | 29  | 25 *  |
| 44.40 | 47.50 | 28  | 28    | 44.20 | 48.00 | 27  | 27 *  |
| 44.40 | 47.40 | 31  | 30    | 44.20 | 47.50 | 23  | 29 *  |
| 44.40 | 47.30 | 37  | 30    | 44.20 | 47.40 | 19  | 33 *  |



| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 44.20 | 47.30 | 19  | 34 * | 44.00 | 47.40 | 13  | 26 * |
| 44.20 | 47.20 | 23  | 27 * | 44.00 | 47.30 | 12  | 26 * |
| 44.20 | 47.10 | 36  | 20 * | 44.00 | 47.20 | 11  | 24 * |
| 44.20 | 47.00 | 48  | 16 * | 44.00 | 47.10 | 12  | 21 * |
| 44.20 | 46.50 | 65  | 15 * | 44.00 | 47.00 | 20  | 18 * |
| 44.20 | 46.40 | 92  | 14 * | 44.00 | 46.50 | 34  | 15 * |
| 44.20 | 46.30 | 109 | 16 * | 44.00 | 46.40 | 53  | 15 * |
| 44.20 | 46.20 | 100 | 17 * | 44.00 | 46.30 | 63  | 17 * |
| 44.20 | 46.10 | 88  | 23 * | 44.00 | 46.20 | 60  | 22 * |
| 44.20 | 46.00 | 88  | 29 * | 44.00 | 46.10 | 60  | 28 * |
| 44.20 | 45.40 | 66  | 37 * | 44.00 | 46.00 | 69  | 32 * |
| 44.20 | 45.20 | 69  | 32 * | 44.00 | 45.40 | 69  | 42 * |
| 44.20 | 45.00 | 69  | 32 * | 44.00 | 45.20 | 68  | 43 * |
| 44.20 | 44.40 | 70  | 42 * | 44.00 | 45.00 | 77  | 56 * |
| 44.20 | 44.20 | 70  | 42 * | 44.00 | 44.40 | 69  | 47 * |
| 44.20 | 44.00 | 68  | 44 * | 44.00 | 44.20 | 68  | 44 * |
| 44.20 | 43.40 | 68  | 44 * | 44.00 | 44.00 | 69  | 47 * |
| 44.20 | 43.20 | 68  | 44 * | 44.00 | 43.40 | 69  | 47 * |
| 44.20 | 43.00 | 71  | 44 * | 44.00 | 43.20 | 78  | 47 * |
| 44.20 | 42.40 | 78  | 35 * | 44.00 | 43.00 | 78  | 47 * |
| 44.20 | 42.20 | 78  | 35 * | 44.00 | 42.40 | 81  | 44 * |
| 44.20 | 42.00 | 71  | 30 * | 44.00 | 42.20 | 81  | 44 * |
| 44.20 | 41.40 | 79  | 26 * | 44.00 | 42.00 | 78  | 35 * |
| 44.20 | 41.20 | 79  | 26 * | 44.00 | 41.40 | 81  | 30 * |
| 44.20 | 41.00 | 79  | 26 * | 44.00 | 41.20 | 81  | 30 * |
| 44.20 | 40.40 | 78  | 23 * | 44.00 | 41.00 | 81  | 30 * |
| 44.20 | 40.20 | 78  | 23 * | 44.00 | 40.40 | 79  | 26 * |
| 44.20 | 40.00 | 72  | 18 * | 44.00 | 40.20 | 79  | 26 * |
| 44.20 | 39.40 | 72  | 18 * | 44.00 | 40.00 | 79  | 26 * |
| 44.20 | 39.20 | 72  | 18 * | 44.00 | 39.40 | 77  | 21 * |
| 44.20 | 39.00 | 72  | 18 * | 44.00 | 39.20 | 77  | 21 * |
| 44.00 | 57.00 | 220 | 39 * | 44.00 | 39.00 | 77  | 21 * |
| 44.00 | 56.40 | 220 | 39 * | 43.40 | 57.00 | 220 | 39 * |
| 44.00 | 56.20 | 220 | 39 * | 43.40 | 56.40 | 220 | 39 * |
| 44.00 | 56.00 | 220 | 39 * | 43.40 | 56.20 | 220 | 39 * |
| 44.00 | 55.40 | 220 | 39 * | 43.40 | 56.00 | 220 | 39 * |
| 44.00 | 55.20 | 210 | 40 * | 43.40 | 55.40 | 220 | 39 * |
| 44.00 | 55.00 | 210 | 40 * | 43.40 | 55.20 | 210 | 40 * |
| 44.00 | 54.40 | 210 | 40 * | 43.40 | 55.00 | 210 | 40 * |
| 44.00 | 54.20 | 210 | 40 * | 43.40 | 54.40 | 210 | 40 * |
| 44.00 | 54.00 | 210 | 40 * | 43.40 | 54.20 | 210 | 40 * |
| 44.00 | 53.40 | 210 | 32 * | 43.40 | 54.00 | 200 | 39 * |
| 44.00 | 53.20 | 208 | 29 * | 43.40 | 53.40 | 201 | 32 * |
| 44.00 | 53.00 | 210 | 23 * | 43.40 | 53.20 | 201 | 32 * |
| 44.00 | 52.40 | 209 | 23 * | 43.40 | 53.00 | 198 | 29 * |
| 44.00 | 52.20 | 201 | 23 * | 43.40 | 52.40 | 198 | 29 * |
| 44.00 | 52.00 | 201 | 23 * | 43.40 | 52.20 | 199 | 27 * |
| 44.00 | 51.40 | 191 | 23 * | 43.40 | 52.00 | 259 | 22 * |
| 44.00 | 51.20 | 192 | 23 * | 43.40 | 51.40 | 161 | 27 * |
| 44.00 | 51.00 | 191 | 23 * | 43.40 | 51.20 | 34  | 19 * |
| 44.00 | 50.40 | 349 | 23 * | 43.40 | 51.00 | 99  | 20 * |
| 44.00 | 50.20 | 347 | 23 * | 43.40 | 50.40 | 47  | 22 * |
| 44.00 | 50.00 | 176 | 10 * | 43.40 | 50.20 | 64  | 6 *  |
| 44.00 | 49.50 | 167 | 11 * | 43.40 | 50.00 | 241 | 10 * |
| 44.00 | 49.40 | 131 | 7 *  | 43.40 | 49.50 | 325 | 12 * |
| 44.00 | 49.30 | 139 | 6 *  | 43.40 | 49.40 | 288 | 4 *  |
| 44.00 | 49.20 | 187 | 23 * | 43.40 | 49.30 | 203 | 22 * |
| 44.00 | 49.10 | 195 | 48 * | 43.40 | 49.20 | 194 | 51 * |
| 44.00 | 49.00 | 195 | 83 * | 43.40 | 49.10 | 199 | 92 * |
| 44.00 | 48.50 | 190 | 56 * | 43.40 | 49.00 | 202 | 60 * |
| 44.00 | 48.40 | 181 | 24 * | 43.40 | 48.50 | 204 | 36 * |
| 44.00 | 48.30 | 20  | 9 *  | 43.40 | 48.40 | 215 | 11 * |
| 44.00 | 48.20 | 9   | 21 * | 43.40 | 48.30 | 344 | 11 * |
| 44.00 | 48.10 | 10  | 22 * | 43.40 | 48.20 | 351 | 22 * |
| 44.00 | 48.00 | 13  | 23 * | 43.40 | 48.10 | 351 | 27 * |
| 44.00 | 47.50 | 13  | 24 * | 43.40 | 48.00 | 350 | 28 * |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 43.40 | 47.50 | 353 | 29 * | 43.20 | 48.00 | 3   | 22 * |
| 43.40 | 47.40 | 356 | 32 * | 43.20 | 47.50 | 0   | 29 * |
| 43.40 | 47.30 | 1   | 33 * | 43.20 | 47.40 | 1   | 35 * |
| 43.40 | 47.20 | 8   | 27 * | 43.20 | 47.30 | 3   | 38 * |
| 43.40 | 47.10 | 16  | 22 * | 43.20 | 47.20 | 8   | 38 * |
| 43.40 | 47.00 | 20  | 23 * | 43.20 | 47.10 | 17  | 36 * |
| 43.40 | 46.50 | 26  | 25 * | 43.20 | 47.00 | 27  | 34 * |
| 43.40 | 46.40 | 42  | 22 * | 43.20 | 46.50 | 32  | 36 * |
| 43.40 | 46.30 | 57  | 25 * | 43.20 | 46.40 | 32  | 44 * |
| 43.40 | 46.20 | 50  | 37 * | 43.20 | 46.30 | 37  | 65 * |
| 43.40 | 46.10 | 45  | 48 * | 43.20 | 46.20 | 47  | 70 * |
| 43.40 | 46.00 | 50  | 50 * | 43.20 | 46.10 | 55  | 65 * |
| 43.40 | 45.40 | 65  | 43 * | 43.20 | 46.00 | 60  | 63 * |
| 43.40 | 45.20 | 59  | 44 * | 43.20 | 45.40 | 46  | 64 * |
| 43.40 | 45.00 | 62  | 61 * | 43.20 | 45.20 | 70  | 54   |
| 43.40 | 44.40 | 68  | 64   | 43.20 | 45.00 | 80  | 58   |
| 43.40 | 44.20 | 68  | 64   | 43.20 | 44.40 | 79  | 63   |
| 43.40 | 44.00 | 69  | 59   | 43.20 | 44.20 | 79  | 66   |
| 43.40 | 43.40 | 79  | 52   | 43.20 | 44.00 | 79  | 71   |
| 43.40 | 43.20 | 78  | 47   | 43.20 | 43.40 | 80  | 56   |
| 43.40 | 43.00 | 71  | 44   | 43.20 | 43.20 | 79  | 52   |
| 43.40 | 42.40 | 90  | 46   | 43.20 | 43.00 | 79  | 49   |
| 43.40 | 42.20 | 90  | 46   | 43.20 | 42.40 | 71  | 44   |
| 43.40 | 42.00 | 90  | 46   | 43.20 | 42.20 | 81  | 44   |
| 43.40 | 41.40 | 90  | 34   | 43.20 | 42.00 | 81  | 44   |
| 43.40 | 41.20 | 90  | 34   | 43.20 | 41.40 | 90  | 34   |
| 43.40 | 41.00 | 90  | 34   | 43.20 | 41.20 | 90  | 34   |
| 43.40 | 40.40 | 90  | 27   | 43.20 | 41.00 | 90  | 34   |
| 43.40 | 40.20 | 90  | 27   | 43.20 | 40.40 | 90  | 27   |
| 43.40 | 40.00 | 90  | 27   | 43.20 | 40.20 | 90  | 27   |
| 43.40 | 39.40 | 90  | 25   | 43.20 | 40.00 | 90  | 27   |
| 43.40 | 39.20 | 90  | 25   | 43.20 | 39.40 | 90  | 25   |
| 43.40 | 39.00 | 90  | 25   | 43.20 | 39.20 | 90  | 25   |
| 43.20 | 57.00 | 190 | 40   | 43.20 | 39.00 | 90  | 25   |
| 43.20 | 56.40 | 190 | 40   | 43.00 | 57.00 | 180 | 39   |
| 43.20 | 56.20 | 190 | 40   | 43.00 | 56.40 | 180 | 39   |
| 43.20 | 56.00 | 190 | 40   | 43.00 | 56.20 | 180 | 39   |
| 43.20 | 55.40 | 190 | 40   | 43.00 | 56.00 | 180 | 39   |
| 43.20 | 55.20 | 190 | 40   | 43.00 | 55.40 | 180 | 39   |
| 43.20 | 55.00 | 190 | 40   | 43.00 | 55.20 | 180 | 39   |
| 43.20 | 54.40 | 190 | 40   | 43.00 | 55.00 | 180 | 39   |
| 43.20 | 54.20 | 190 | 40   | 43.00 | 54.40 | 180 | 39   |
| 43.20 | 54.00 | 190 | 40   | 43.00 | 54.20 | 180 | 39   |
| 43.20 | 53.40 | 190 | 37   | 43.00 | 54.00 | 180 | 39   |
| 43.20 | 53.20 | 190 | 37   | 43.00 | 53.40 | 180 | 39   |
| 43.20 | 53.00 | 180 | 34   | 43.00 | 53.20 | 169 | 37   |
| 43.20 | 52.40 | 180 | 32   | 43.00 | 53.00 | 161 | 36   |
| 43.20 | 52.20 | 188 | 30   | 43.00 | 52.40 | 169 | 37   |
| 43.20 | 52.00 | 254 | 6 *  | 43.00 | 52.20 | 169 | 37   |
| 43.20 | 51.40 | 6   | 7 *  | 43.00 | 52.00 | 195 | 0 *  |
| 43.20 | 51.20 | 343 | 18 * | 43.00 | 51.40 | 219 | 22 * |
| 43.20 | 51.00 | 34  | 6 *  | 43.00 | 51.20 | 246 | 25 * |
| 43.20 | 50.40 | 86  | 8 *  | 43.00 | 51.00 | 304 | 34 * |
| 43.20 | 50.20 | 190 | 7 *  | 43.00 | 50.40 | 266 | 29 * |
| 43.20 | 50.00 | 159 | 14 * | 43.00 | 50.20 | 262 | 32 * |
| 43.20 | 49.50 | 195 | 7 *  | 43.00 | 50.00 | 241 | 40 * |
| 43.20 | 49.40 | 218 | 27 * | 43.00 | 49.50 | 227 | 53 * |
| 43.20 | 49.30 | 213 | 51 * | 43.00 | 49.40 | 221 | 59 * |
| 43.20 | 49.20 | 204 | 84 * | 43.00 | 49.30 | 215 | 54 * |
| 43.20 | 49.10 | 202 | 60 * | 43.00 | 49.20 | 210 | 37 * |
| 43.20 | 49.00 | 199 | 33 * | 43.00 | 49.10 | 201 | 18 * |
| 43.20 | 48.50 | 203 | 3 *  | 43.00 | 49.00 | 143 | 4 *  |
| 43.20 | 48.40 | 27  | 11 * | 43.00 | 48.50 | 43  | 7 *  |
| 43.20 | 48.30 | 30  | 16 * | 43.00 | 48.40 | 20  | 12 * |
| 43.20 | 48.20 | 24  | 17 * | 43.00 | 48.30 | 13  | 15 * |
| 43.20 | 48.10 | 13  | 18 * | 43.00 | 48.20 | 16  | 15 * |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 43.00 | 48.10 | 20  | 17 * | 42.40 | 48.20 | 29  | 22 * |
| 43.00 | 48.00 | 19  | 24 * | 42.40 | 48.10 | 28  | 27   |
| 43.00 | 47.50 | 17  | 33 * | 42.40 | 48.00 | 27  | 36   |
| 43.00 | 47.40 | 17  | 40 * | 42.40 | 47.50 | 25  | 42   |
| 43.00 | 47.30 | 16  | 45 * | 42.40 | 47.40 | 25  | 42 * |
| 43.00 | 47.20 | 15  | 48 * | 42.40 | 47.30 | 22  | 40 * |
| 43.00 | 47.10 | 17  | 49 * | 42.40 | 47.20 | 15  | 45 * |
| 43.00 | 47.00 | 25  | 55 * | 42.40 | 47.10 | 13  | 58 * |
| 43.00 | 46.50 | 31  | 61 * | 42.40 | 47.00 | 14  | 60 * |
| 43.00 | 46.40 | 32  | 79 * | 42.40 | 46.50 | 14  | 96 * |
| 43.00 | 46.30 | 32  | 87 * | 42.40 | 46.40 | 27  | 90 * |
| 43.00 | 46.20 | 40  | 74 * | 42.40 | 46.30 | 30  | 76 * |
| 43.00 | 46.10 | 53  | 63 * | 42.40 | 46.20 | 28  | 77 * |
| 43.00 | 46.00 | 46  | 64 * | 42.40 | 46.10 | 40  | 72 * |
| 43.00 | 45.40 | 160 | 33 * | 42.40 | 46.00 | 95  | 56 * |
| 43.00 | 45.20 | 79  | 52   | 42.40 | 45.40 | 69  | 52   |
| 43.00 | 45.00 | 40  | 54   | 42.40 | 45.20 | 74  | 52   |
| 43.00 | 44.40 | 40  | 54   | 42.40 | 45.00 | 79  | 52   |
| 43.00 | 44.20 | 30  | 58   | 42.40 | 44.40 | 90  | 44   |
| 43.00 | 44.00 | 40  | 55   | 42.40 | 44.20 | 90  | 48   |
| 43.00 | 43.40 | 90  | 48   | 42.40 | 44.00 | 90  | 48   |
| 43.00 | 43.20 | 90  | 46   | 42.40 | 43.40 | 90  | 44   |
| 43.00 | 43.00 | 98  | 44   | 42.40 | 43.20 | 99  | 42   |
| 43.00 | 42.40 | 100 | 40   | 42.40 | 43.00 | 99  | 42   |
| 43.00 | 42.20 | 100 | 40   | 42.40 | 42.40 | 98  | 30   |
| 43.00 | 42.00 | 100 | 40   | 42.40 | 42.20 | 98  | 30   |
| 43.00 | 41.40 | 101 | 35   | 42.40 | 42.00 | 94  | 30   |
| 43.00 | 41.20 | 101 | 35   | 42.40 | 41.40 | 108 | 36   |
| 43.00 | 41.00 | 100 | 37   | 42.40 | 41.20 | 108 | 36   |
| 43.00 | 40.40 | 100 | 40   | 42.40 | 41.00 | 108 | 36   |
| 43.00 | 40.20 | 100 | 40   | 42.40 | 40.40 | 109 | 42   |
| 43.00 | 40.00 | 40  | 30   | 42.40 | 40.20 | 109 | 42   |
| 43.00 | 39.40 | 50  | 23   | 42.40 | 40.00 | 109 | 42   |
| 43.00 | 39.20 | 40  | 23   | 42.40 | 39.40 | 111 | 25   |
| 43.00 | 39.00 | 30  | 23   | 42.40 | 39.20 | 111 | 25   |
| 42.40 | 37.00 | 149 | 40   | 42.40 | 39.00 | 111 | 25   |
| 42.40 | 56.40 | 149 | 40   | 42.20 | 57.00 | 120 | 40   |
| 42.40 | 56.20 | 159 | 39   | 42.20 | 56.40 | 120 | 40   |
| 42.40 | 56.00 | 159 | 39   | 42.20 | 56.20 | 130 | 42   |
| 42.40 | 55.40 | 159 | 39   | 42.20 | 56.00 | 130 | 42   |
| 42.40 | 55.20 | 169 | 40   | 42.20 | 55.40 | 141 | 44   |
| 42.40 | 55.00 | 170 | 42   | 42.20 | 55.20 | 141 | 44   |
| 42.40 | 54.40 | 170 | 42   | 42.20 | 55.00 | 141 | 44   |
| 42.40 | 54.20 | 170 | 42   | 42.20 | 54.40 | 149 | 45   |
| 42.40 | 54.00 | 170 | 42   | 42.20 | 54.20 | 149 | 45   |
| 42.40 | 53.40 | 160 | 42   | 42.20 | 54.00 | 149 | 45   |
| 42.40 | 53.20 | 150 | 42   | 42.20 | 53.40 | 139 | 42   |
| 42.40 | 53.00 | 139 | 42   | 42.20 | 53.20 | 139 | 42   |
| 42.40 | 52.40 | 130 | 42 * | 42.20 | 53.00 | 130 | 42   |
| 42.40 | 52.20 | 119 | 42 * | 42.20 | 52.40 | 120 | 45   |
| 42.40 | 52.00 | 196 | 17 * | 42.20 | 52.20 | 110 | 47   |
| 42.40 | 51.40 | 144 | 11 * | 42.20 | 52.00 | 83  | 29 * |
| 42.40 | 51.20 | 256 | 4 *  | 42.20 | 51.40 | 124 | 40 * |
| 42.40 | 51.00 | 253 | 21 * | 42.20 | 51.20 | 130 | 26 * |
| 42.40 | 50.40 | 257 | 31 * | 42.20 | 51.00 | 152 | 18 * |
| 42.40 | 50.20 | 248 | 36 * | 42.20 | 50.40 | 142 | 12 * |
| 42.40 | 50.00 | 235 | 47 * | 42.20 | 50.20 | 185 | 13 * |
| 42.40 | 49.50 | 236 | 40 * | 42.20 | 50.00 | 128 | 13 * |
| 42.40 | 49.40 | 247 | 25 * | 42.20 | 49.50 | 93  | 18 * |
| 42.40 | 49.30 | 278 | 12 * | 42.20 | 49.40 | 42  | 24 * |
| 42.40 | 49.20 | 320 | 3 *  | 42.20 | 49.30 | 77  | 25 * |
| 42.40 | 49.10 | 46  | 4 *  | 42.20 | 49.20 | 74  | 24 * |
| 42.40 | 49.00 | 79  | 7 *  | 42.20 | 49.10 | 70  | 22 * |
| 42.40 | 48.50 | 59  | 9 *  | 42.20 | 49.00 | 66  | 22 * |
| 42.40 | 48.40 | 40  | 13 * | 42.20 | 48.50 | 63  | 24 * |
| 42.40 | 48.30 | 31  | 18 * | 42.20 | 48.40 | 59  | 27 * |

| LAT   | LONG  | DIR | SPD   |       |       |     |       |
|-------|-------|-----|-------|-------|-------|-----|-------|
| 42.20 | 48.30 | 52  | 30 *  | 42.00 | 48.40 | 66  | 21 *  |
| 42.20 | 48.20 | 45  | 31 *  | 42.00 | 48.30 | 58  | 15 *  |
| 42.20 | 48.10 | 40  | 33 *  | 42.00 | 48.20 | 36  | 13 *  |
| 42.20 | 48.00 | 28  | 31 *  | 42.00 | 48.10 | 358 | 12    |
| 42.20 | 47.50 | 12  | 30 *  | 42.00 | 48.00 | 20  | 7     |
| 42.20 | 47.40 | 359 | 30 *  | 42.00 | 47.50 | 25  | 4 *   |
| 42.20 | 47.30 | 0   | 34 *  | 42.00 | 47.40 | 8   | 25 *  |
| 42.20 | 47.20 | 5   | 45 *  | 42.00 | 47.30 | 1   | 46 *  |
| 42.20 | 47.10 | 6   | 65 *  | 42.00 | 47.20 | 3   | 60 *  |
| 42.20 | 47.00 | 4   | 94 *  | 42.00 | 47.10 | 7   | 70 *  |
| 42.20 | 46.50 | 3   | 110 * | 42.00 | 47.00 | 9   | 92 *  |
| 42.20 | 46.40 | 6   | 28 *  | 42.00 | 46.50 | 2   | 92 *  |
| 42.20 | 46.30 | 13  | 64 *  | 42.00 | 46.40 | 346 | 101 * |
| 42.20 | 46.20 | 14  | 71 *  | 42.00 | 46.30 | 2   | 93 *  |
| 42.20 | 46.10 | 7   | 79 *  | 42.00 | 46.20 | 9   | 51 *  |
| 42.20 | 46.00 | 9   | 62 *  | 42.00 | 46.10 | 324 | 17 *  |
| 42.20 | 45.40 | 69  | 52    | 42.00 | 46.00 | 304 | 34 *  |
| 42.20 | 45.20 | 78  | 47    | 42.00 | 45.40 | 60  | 42    |
| 42.20 | 45.00 | 78  | 47    | 42.00 | 45.20 | 70  | 42    |
| 42.20 | 44.40 | 40  | 44    | 42.00 | 45.00 | 70  | 42    |
| 42.20 | 44.20 | 40  | 41    | 42.00 | 44.40 | 79  | 40    |
| 42.20 | 44.00 | 40  | 41    | 42.00 | 44.20 | 40  | 39    |
| 42.20 | 43.40 | 90  | 37    | 42.00 | 44.00 | 90  | 37    |
| 42.20 | 43.20 | 100 | 37    | 42.00 | 43.40 | 40  | 37    |
| 42.20 | 43.00 | 101 | 35    | 42.00 | 43.20 | 40  | 37    |
| 42.20 | 42.40 | 94  | 30    | 42.00 | 43.00 | 40  | 34    |
| 42.20 | 42.20 | 94  | 30    | 42.00 | 42.40 | 40  | 30    |
| 42.20 | 42.00 | 94  | 30    | 42.00 | 42.20 | 40  | 30    |
| 42.20 | 41.40 | 108 | 35    | 42.00 | 42.00 | 94  | 30    |
| 42.20 | 41.20 | 108 | 36    | 42.00 | 41.40 | 94  | 30    |
| 42.20 | 41.00 | 108 | 35    | 42.00 | 41.20 | 94  | 30    |
| 42.20 | 40.40 | 109 | 42    | 42.00 | 41.00 | 104 | 29    |
| 42.20 | 40.20 | 109 | 42    | 42.00 | 40.40 | 102 | 29    |
| 42.20 | 40.00 | 109 | 42    | 42.00 | 40.20 | 108 | 29    |
| 42.20 | 39.40 | 111 | 25    | 42.00 | 40.00 | 104 | 29    |
| 42.20 | 39.20 | 111 | 25    | 42.00 | 39.40 | 102 | 21    |
| 42.20 | 39.00 | 111 | 25    | 42.00 | 39.20 | 102 | 21    |
| 42.00 | 57.00 | 100 | 40    | 42.00 | 39.00 | 102 | 21    |
| 42.00 | 56.40 | 100 | 40    | 41.40 | 57.00 | 40  | 39    |
| 42.00 | 56.20 | 110 | 39    | 41.40 | 56.40 | 40  | 39    |
| 42.00 | 56.00 | 109 | 42    | 41.40 | 56.20 | 40  | 41    |
| 42.00 | 55.40 | 119 | 42    | 41.40 | 56.00 | 44  | 44    |
| 42.00 | 55.20 | 120 | 45    | 41.40 | 55.40 | 44  | 44    |
| 42.00 | 55.00 | 130 | 39    | 41.40 | 55.20 | 44  | 44    |
| 42.00 | 54.40 | 129 | 48    | 41.40 | 55.00 | 44  | 44    |
| 42.00 | 54.20 | 129 | 48    | 41.40 | 54.40 | 110 | 47    |
| 42.00 | 54.00 | 129 | 48    | 41.40 | 54.20 | 110 | 47    |
| 42.00 | 53.40 | 128 | 44    | 41.40 | 54.00 | 109 | 49    |
| 42.00 | 53.20 | 128 | 44    | 41.40 | 53.40 | 110 | 47    |
| 42.00 | 53.00 | 120 | 45    | 41.40 | 53.20 | 110 | 47    |
| 42.00 | 52.40 | 119 | 47    | 41.40 | 53.00 | 100 | 49    |
| 42.00 | 52.20 | 110 | 47    | 41.40 | 52.40 | 100 | 52    |
| 42.00 | 52.00 | 70  | 34 *  | 41.40 | 52.20 | 100 | 49    |
| 42.00 | 51.40 | 137 | 29 *  | 41.40 | 52.00 | 100 | 52    |
| 42.00 | 51.20 | 124 | 46 *  | 41.40 | 51.40 | 358 | 23 *  |
| 42.00 | 51.00 | 133 | 47 *  | 41.40 | 51.20 | 49  | 35 *  |
| 42.00 | 50.40 | 114 | 45 *  | 41.40 | 51.00 | 108 | 55 *  |
| 42.00 | 50.20 | 94  | 37 *  | 41.40 | 50.40 | 46  | 59 *  |
| 42.00 | 50.00 | 40  | 45 *  | 41.40 | 50.20 | 94  | 71 *  |
| 42.00 | 49.50 | 72  | 51 *  | 41.40 | 50.00 | 77  | 81 *  |
| 42.00 | 49.40 | 74  | 52 *  | 41.40 | 49.50 | 79  | 78 *  |
| 42.00 | 49.30 | 42  | 49 *  | 41.40 | 49.40 | 89  | 72 *  |
| 42.00 | 49.20 | 94  | 43 *  | 41.40 | 49.30 | 100 | 69 *  |
| 42.00 | 49.10 | 101 | 39 *  | 41.40 | 49.20 | 102 | 64 *  |
| 42.00 | 49.00 | 92  | 32 *  | 41.40 | 49.10 | 100 | 68 *  |
| 42.00 | 48.50 | 74  | 27 *  | 41.40 | 49.00 | 101 | 68 *  |

| LAT   | LONG  | DIR | SPD  |       |       |     |      |
|-------|-------|-----|------|-------|-------|-----|------|
| 41.40 | 48.50 | 103 | 67 * | 41.20 | 49.00 | 113 | 38 * |
| 41.40 | 48.40 | 102 | 61 * | 41.20 | 48.50 | 124 | 32 * |
| 41.40 | 48.30 | 100 | 54 * | 41.20 | 48.40 | 132 | 29 * |
| 41.40 | 48.20 | 94  | 45 * | 41.20 | 48.30 | 124 | 29 * |
| 41.40 | 48.10 | 85  | 55 * | 41.20 | 48.20 | 100 | 38 * |
| 41.40 | 48.00 | 61  | 33 * | 41.20 | 48.10 | 106 | 52 * |
| 41.40 | 47.50 | 44  | 36 * | 41.20 | 48.00 | 109 | 66 * |
| 41.40 | 47.40 | 44  | 42 * | 41.20 | 47.50 | 115 | 49 * |
| 41.40 | 47.30 | 46  | 57 * | 41.20 | 47.40 | 26  | 41 * |
| 41.40 | 47.20 | 32  | 74 * | 41.20 | 47.30 | 6   | 92 * |
| 41.40 | 47.10 | 23  | 90 * | 41.20 | 47.20 | 34  | 97 * |
| 41.40 | 47.00 | 18  | 83 * | 41.20 | 47.10 | 83  | 44 * |
| 41.40 | 46.50 | 14  | 54 * | 41.20 | 47.00 | 69  | 47   |
| 41.40 | 46.40 | 60  | 47   | 41.20 | 46.50 | 69  | 47   |
| 41.40 | 46.30 | 58  | 49   | 41.20 | 46.40 | 71  | 44   |
| 41.40 | 46.20 | 58  | 49   | 41.20 | 46.30 | 64  | 43   |
| 41.40 | 46.10 | 59  | 45   | 41.20 | 46.20 | 50  | 42   |
| 41.40 | 46.00 | 60  | 42   | 41.20 | 46.10 | 54  | 40   |
| 41.40 | 45.40 | 60  | 37   | 41.20 | 46.00 | 60  | 37   |
| 41.40 | 45.20 | 60  | 37   | 41.20 | 45.40 | 59  | 32   |
| 41.40 | 45.00 | 58  | 35   | 41.20 | 45.20 | 61  | 29   |
| 41.40 | 44.40 | 71  | 36   | 41.20 | 45.00 | 51  | 29   |
| 41.40 | 44.20 | 78  | 35   | 41.20 | 44.40 | 48  | 31   |
| 41.40 | 44.00 | 90  | 34   | 41.20 | 44.20 | 50  | 33   |
| 41.40 | 43.40 | 90  | 34   | 41.20 | 44.00 | 68  | 32   |
| 41.40 | 43.20 | 101 | 35   | 41.20 | 43.40 | 90  | 32   |
| 41.40 | 43.00 | 101 | 35   | 41.20 | 43.20 | 101 | 35   |
| 41.40 | 42.40 | 90  | 30   | 41.20 | 43.00 | 109 | 54   |
| 41.40 | 42.20 | 90  | 30   | 41.20 | 42.40 | 109 | 49   |
| 41.40 | 42.00 | 99  | 30   | 41.20 | 42.20 | 104 | 49   |
| 41.40 | 41.40 | 111 | 25   | 41.20 | 42.00 | 100 | 44   |
| 41.40 | 41.20 | 119 | 23   | 41.20 | 41.40 | 111 | 25   |
| 41.40 | 41.00 | 119 | 23   | 41.20 | 41.20 | 111 | 25   |
| 41.40 | 40.40 | 131 | 24   | 41.20 | 41.00 | 119 | 23   |
| 41.40 | 40.20 | 131 | 24   | 41.20 | 40.40 | 119 | 23   |
| 41.40 | 40.00 | 119 | 18   | 41.20 | 40.20 | 131 | 24   |
| 41.40 | 39.40 | 119 | 18   | 41.20 | 40.00 | 131 | 24   |
| 41.40 | 39.20 | 119 | 18   | 41.20 | 39.40 | 119 | 18   |
| 41.40 | 39.00 | 0   | 0    | 41.20 | 39.20 | 119 | 18   |
| 41.20 | 57.00 | 90  | 39   | 41.20 | 39.00 | 119 | 18   |
| 41.20 | 56.40 | 90  | 39   | 41.00 | 57.00 | 79  | 40   |
| 41.20 | 56.20 | 90  | 39   | 41.00 | 56.40 | 79  | 40   |
| 41.20 | 56.00 | 90  | 41   | 41.00 | 56.20 | 80  | 42   |
| 41.20 | 55.40 | 90  | 44   | 41.00 | 56.00 | 81  | 44   |
| 41.20 | 55.20 | 90  | 48   | 41.00 | 55.40 | 90  | 48   |
| 41.20 | 55.00 | 90  | 48   | 41.00 | 55.20 | 90  | 48   |
| 41.20 | 54.40 | 90  | 48   | 41.00 | 55.00 | 90  | 53   |
| 41.20 | 54.20 | 90  | 48   | 41.00 | 54.40 | 90  | 55   |
| 41.20 | 54.00 | 90  | 48   | 41.00 | 54.20 | 90  | 58   |
| 41.20 | 53.40 | 90  | 46   | 41.00 | 54.00 | 90  | 60   |
| 41.20 | 53.20 | 90  | 48   | 41.00 | 53.40 | 90  | 55   |
| 41.20 | 53.00 | 90  | 51   | 41.00 | 53.20 | 90  | 55   |
| 41.20 | 52.40 | 90  | 53   | 41.00 | 53.00 | 90  | 55   |
| 41.20 | 52.20 | 90  | 55   | 41.00 | 52.40 | 90  | 55   |
| 41.20 | 52.00 | 90  | 55   | 41.00 | 52.20 | 90  | 58   |
| 41.20 | 51.40 | 90  | 55   | 41.00 | 52.00 | 90  | 58   |
| 41.20 | 51.20 | 90  | 58   | 41.00 | 51.40 | 90  | 58   |
| 41.20 | 51.00 | 110 | 65 * | 41.00 | 51.20 | 90  | 58   |
| 41.20 | 50.40 | 102 | 48 * | 41.00 | 51.00 | 90  | 55   |
| 41.20 | 50.20 | 51  | 47 * | 41.00 | 50.40 | 90  | 53   |
| 41.20 | 50.00 | 76  | 68 * | 41.00 | 50.20 | 9   | 82 * |
| 41.20 | 49.50 | 94  | 62 * | 41.00 | 50.00 | 57  | 61 * |
| 41.20 | 49.40 | 102 | 51 * | 41.00 | 49.50 | 127 | 59 * |
| 41.20 | 49.30 | 103 | 45 * | 41.00 | 49.40 | 147 | 61 * |
| 41.20 | 49.20 | 104 | 42 * | 41.00 | 49.30 | 153 | 44 * |
| 41.20 | 49.10 | 106 | 40 * | 41.00 | 49.20 | 159 | 30 * |

| LAT   | LONG  | DIR | SPD |       |       |     |    |
|-------|-------|-----|-----|-------|-------|-----|----|
| 41.00 | 49.10 | 171 | 28* | 40.40 | 49.20 | 90  | 51 |
| 41.00 | 49.00 | 185 | 51* | 40.40 | 49.10 | 90  | 51 |
| 41.00 | 48.50 | 90  | 51  | 40.40 | 49.00 | 90  | 48 |
| 41.00 | 48.40 | 90  | 51  | 40.40 | 48.50 | 90  | 48 |
| 41.00 | 48.30 | 90  | 51  | 40.40 | 48.40 | 90  | 48 |
| 41.00 | 48.20 | 90  | 51  | 40.40 | 48.30 | 90  | 46 |
| 41.00 | 48.10 | 84  | 49  | 40.40 | 48.20 | 90  | 44 |
| 41.00 | 48.00 | 78  | 47  | 40.40 | 48.10 | 90  | 44 |
| 41.00 | 47.50 | 78  | 47  | 40.40 | 48.00 | 90  | 41 |
| 41.00 | 47.40 | 81  | 44  | 40.40 | 47.50 | 90  | 41 |
| 41.00 | 47.30 | 81  | 44  | 40.40 | 47.40 | 90  | 41 |
| 41.00 | 47.20 | 80  | 42  | 40.40 | 47.30 | 90  | 39 |
| 41.00 | 47.10 | 80  | 42  | 40.40 | 47.20 | 90  | 37 |
| 41.00 | 47.00 | 80  | 42  | 40.40 | 47.10 | 82  | 37 |
| 41.00 | 46.50 | 79  | 40  | 40.40 | 47.00 | 78  | 35 |
| 41.00 | 46.40 | 79  | 37  | 40.40 | 46.50 | 78  | 35 |
| 41.00 | 46.30 | 75  | 38  | 40.40 | 46.40 | 78  | 35 |
| 41.00 | 46.20 | 71  | 36  | 40.40 | 46.30 | 74  | 33 |
| 41.00 | 46.10 | 53  | 36  | 40.40 | 46.20 | 67  | 30 |
| 41.00 | 46.00 | 58  | 35  | 40.40 | 46.10 | 63  | 31 |
| 41.00 | 45.40 | 59  | 32  | 40.40 | 46.00 | 59  | 32 |
| 41.00 | 45.20 | 61  | 29  | 40.40 | 45.40 | 61  | 29 |
| 41.00 | 45.00 | 51  | 29  | 40.40 | 45.20 | 48  | 24 |
| 41.00 | 44.40 | 61  | 29  | 40.40 | 45.00 | 29  | 13 |
| 41.00 | 44.20 | 34  | 29  | 40.40 | 44.40 | 8   | 16 |
| 41.00 | 44.00 | 31  | 30  | 40.40 | 44.20 | 8   | 16 |
| 41.00 | 43.40 | 94  | 30  | 40.40 | 44.00 | 18  | 14 |
| 41.00 | 43.20 | 112 | 30  | 40.40 | 43.40 | 34  | 23 |
| 41.00 | 43.00 | 94  | 30  | 40.40 | 43.20 | 50  | 23 |
| 41.00 | 42.40 | 102 | 21  | 40.40 | 43.00 | 71  | 22 |
| 41.00 | 42.20 | 90  | 20  | 40.40 | 42.40 | 77  | 21 |
| 41.00 | 42.00 | 90  | 20  | 40.40 | 42.20 | 90  | 20 |
| 41.00 | 41.40 | 97  | 18  | 40.40 | 42.00 | 90  | 20 |
| 41.00 | 41.20 | 97  | 18  | 40.40 | 41.40 | 90  | 11 |
| 41.00 | 41.00 | 119 | 19  | 40.40 | 41.20 | 90  | 11 |
| 41.00 | 40.40 | 119 | 13  | 40.40 | 41.00 | 101 | 11 |
| 41.00 | 40.20 | 119 | 18  | 40.40 | 40.40 | 111 | 12 |
| 41.00 | 40.00 | 119 | 18  | 40.40 | 40.20 | 124 | 11 |
| 41.00 | 39.40 | 116 | 15  | 40.40 | 40.00 | 126 | 11 |
| 41.00 | 39.20 | 116 | 15  | 40.40 | 39.40 | 126 | 11 |
| 41.00 | 39.00 | 116 | 15  | 40.40 | 39.20 | 111 | 12 |
| 40.40 | 57.00 | 81  | 44  | 40.40 | 39.00 | 111 | 12 |
| 40.40 | 56.40 | 78  | 47  | 40.20 | 57.00 | 79  | 49 |
| 40.40 | 56.20 | 79  | 49  | 40.20 | 56.40 | 79  | 49 |
| 40.40 | 56.00 | 79  | 52  | 40.20 | 56.20 | 79  | 49 |
| 40.40 | 55.40 | 80  | 54  | 40.20 | 56.00 | 80  | 54 |
| 40.40 | 55.20 | 80  | 54  | 40.20 | 55.40 | 80  | 54 |
| 40.40 | 55.00 | 80  | 58  | 40.20 | 55.20 | 80  | 58 |
| 40.40 | 54.40 | 90  | 62  | 40.20 | 55.00 | 80  | 58 |
| 40.40 | 54.20 | 90  | 65  | 40.20 | 54.40 | 90  | 60 |
| 40.40 | 54.00 | 90  | 65  | 40.20 | 54.20 | 90  | 65 |
| 40.40 | 53.40 | 90  | 65  | 40.20 | 54.00 | 90  | 65 |
| 40.40 | 53.20 | 90  | 65  | 40.20 | 53.40 | 90  | 65 |
| 40.40 | 53.00 | 90  | 65  | 40.20 | 53.20 | 90  | 65 |
| 40.40 | 52.40 | 90  | 65  | 40.20 | 53.00 | 90  | 65 |
| 40.40 | 52.20 | 90  | 65  | 40.20 | 52.40 | 90  | 65 |
| 40.40 | 52.00 | 90  | 65  | 40.20 | 52.20 | 90  | 65 |
| 40.40 | 51.40 | 90  | 62  | 40.20 | 52.00 | 90  | 65 |
| 40.40 | 51.20 | 90  | 62  | 40.20 | 51.40 | 90  | 62 |
| 40.40 | 51.00 | 90  | 62  | 40.20 | 51.20 | 90  | 62 |
| 40.40 | 50.40 | 90  | 62  | 40.20 | 51.00 | 90  | 62 |
| 40.40 | 50.20 | 90  | 62  | 40.20 | 50.40 | 90  | 62 |
| 40.40 | 50.00 | 90  | 55  | 40.20 | 50.20 | 90  | 62 |
| 40.40 | 49.50 | 90  | 55  | 40.20 | 50.00 | 90  | 60 |
| 40.40 | 49.40 | 90  | 53  | 40.20 | 49.50 | 90  | 58 |
| 40.40 | 49.30 | 90  | 53  | 40.20 | 49.40 | 90  | 55 |

| LAT   | LONG  | DIR | SPD |       |       |     |    |
|-------|-------|-----|-----|-------|-------|-----|----|
| 40.20 | 49.30 | 90  | 53  | 40.00 | 49.40 | 90  | 48 |
| 40.20 | 49.20 | 90  | 51  | 40.00 | 49.30 | 90  | 48 |
| 40.20 | 49.10 | 90  | 51  | 40.00 | 49.20 | 90  | 48 |
| 40.20 | 49.00 | 90  | 48  | 40.00 | 49.10 | 90  | 48 |
| 40.20 | 48.50 | 90  | 46  | 40.00 | 49.00 | 90  | 46 |
| 40.20 | 48.40 | 90  | 44  | 40.00 | 48.50 | 90  | 44 |
| 40.20 | 48.30 | 90  | 44  | 40.00 | 48.40 | 90  | 41 |
| 40.20 | 48.20 | 90  | 41  | 40.00 | 48.30 | 90  | 41 |
| 40.20 | 48.10 | 90  | 46  | 40.00 | 48.20 | 90  | 41 |
| 40.20 | 48.00 | 90  | 48  | 40.00 | 48.10 | 90  | 39 |
| 40.20 | 47.50 | 90  | 41  | 40.00 | 48.00 | 90  | 34 |
| 40.20 | 47.40 | 90  | 34  | 40.00 | 47.50 | 90  | 32 |
| 40.20 | 47.30 | 90  | 37  | 40.00 | 47.40 | 90  | 30 |
| 40.20 | 47.20 | 100 | 37  | 40.00 | 47.30 | 94  | 30 |
| 40.20 | 47.10 | 105 | 33  | 40.00 | 47.20 | 98  | 30 |
| 40.20 | 47.00 | 112 | 30  | 40.00 | 47.10 | 107 | 31 |
| 40.20 | 46.50 | 112 | 31  | 40.00 | 47.00 | 112 | 30 |
| 40.20 | 46.40 | 108 | 29  | 40.00 | 46.50 | 112 | 30 |
| 40.20 | 46.30 | 114 | 28  | 40.00 | 46.40 | 109 | 27 |
| 40.20 | 46.20 | 120 | 27  | 40.00 | 46.30 | 116 | 26 |
| 40.20 | 46.10 | 120 | 27  | 40.00 | 46.20 | 119 | 23 |
| 40.20 | 46.00 | 120 | 27  | 40.00 | 46.10 | 119 | 23 |
| 40.20 | 45.40 | 131 | 24  | 40.00 | 46.00 | 119 | 23 |
| 40.20 | 45.20 | 150 | 23  | 40.00 | 45.40 | 131 | 24 |
| 40.20 | 45.00 | 158 | 23  | 40.00 | 45.20 | 150 | 23 |
| 40.20 | 44.40 | 347 | 21  | 40.00 | 45.00 | 167 | 21 |
| 40.20 | 44.20 | 0   | 20  | 40.00 | 44.40 | 351 | 16 |
| 40.20 | 44.00 | 4   | 21  | 40.00 | 44.20 | 0   | 16 |
| 40.20 | 43.40 | 49  | 21  | 40.00 | 44.00 | 0   | 16 |
| 40.20 | 43.20 | 50  | 23  | 40.00 | 43.40 | 11  | 23 |
| 40.20 | 43.00 | 68  | 25  | 40.00 | 43.20 | 18  | 22 |
| 40.20 | 42.40 | 78  | 23  | 40.00 | 43.00 | 24  | 23 |
| 40.20 | 42.20 | 80  | 20  | 40.00 | 42.40 | 40  | 21 |
| 40.20 | 42.00 | 80  | 20  | 40.00 | 42.20 | 40  | 21 |
| 40.20 | 41.40 | 90  | 11  | 40.00 | 42.00 | 50  | 23 |
| 40.20 | 41.20 | 90  | 11  | 40.00 | 41.40 | 58  | 12 |
| 40.20 | 41.00 | 101 | 11  | 40.00 | 41.20 | 78  | 11 |
| 40.20 | 40.40 | 101 | 11  | 40.00 | 41.00 | 90  | 11 |
| 40.20 | 40.20 | 111 | 12  | 40.00 | 40.40 | 90  | 11 |
| 40.20 | 40.00 | 111 | 12  | 40.00 | 40.20 | 101 | 11 |
| 40.20 | 39.40 | 101 | 11  | 40.00 | 40.00 | 101 | 11 |
| 40.20 | 39.20 | 101 | 11  | 40.00 | 39.40 | 101 | 11 |
| 40.20 | 39.00 | 101 | 11  | 40.00 | 39.20 | 101 | 11 |
| 40.00 | 57.00 | 70  | 54  | 40.00 | 39.00 | 101 | 11 |
| 40.00 | 56.40 | 70  | 54  | 0.00  | 0.00  | 999 | 0  |
| 40.00 | 56.20 | 80  | 58  |       |       |     |    |
| 40.00 | 56.00 | 80  | 58  |       |       |     |    |
| 40.00 | 55.40 | 80  | 58  |       |       |     |    |
| 40.00 | 55.20 | 80  | 58  |       |       |     |    |
| 40.00 | 55.00 | 80  | 58  |       |       |     |    |
| 40.00 | 54.40 | 79  | 63  |       |       |     |    |
| 40.00 | 54.20 | 79  | 63  |       |       |     |    |
| 40.00 | 54.00 | 90  | 65  |       |       |     |    |
| 40.00 | 53.40 | 90  | 65  |       |       |     |    |
| 40.00 | 53.20 | 90  | 65  |       |       |     |    |
| 40.00 | 53.00 | 90  | 65  |       |       |     |    |
| 40.00 | 52.40 | 90  | 65  |       |       |     |    |
| 40.00 | 52.20 | 90  | 65  |       |       |     |    |
| 40.00 | 52.00 | 90  | 65  |       |       |     |    |
| 40.00 | 51.40 | 90  | 62  |       |       |     |    |
| 40.00 | 51.20 | 90  | 62  |       |       |     |    |
| 40.00 | 51.00 | 90  | 62  |       |       |     |    |
| 40.00 | 50.40 | 90  | 62  |       |       |     |    |
| 40.00 | 50.20 | 90  | 62  |       |       |     |    |
| 40.00 | 50.00 | 90  | 55  |       |       |     |    |
| 40.00 | 49.50 | 90  | 53  |       |       |     |    |











